

INTERNATIONAL  
STANDARDIZED  
PROFILE

**ISO/IEC**  
**ISP**  
**xxxxx-Y**

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**Information Technology - International Standardized Profile**  
**FCG-nnn - Computer Graphics Metafile Interchange Format**

FCGxx - Basic Imagery and Mapping Annotation Graphics  
(BIMA)

**WORKING**  
**DRAFT**

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## Forward

An International Standardized Profile (ISO/IEC 12071) has been developed to provide profiles for the Computer Graphics Metafile (CGM ISO/IEC 8632:1992) at present, four profiles have been previously established as ISPs. They are: Basic Scientific and Technical Graphics (BST), Advanced Scientific and Technical Graphics (AST), Basic Presentation and Visualization (Model Profile), and Advanced Presentation and Visualization (APV). The following is now being progressed:

Part Z: FCG<sub>xx</sub>

### FCG<sub>xx</sub> Basic Imagery and Mapping Annotation Graphics (BIMA)

This standard is normative.

This standard was developed within an Accredited Standards Committee of ANSI, the National Committee for Information technology Standards (NCITS), in collaboration with JTC1/SC24, the committee with responsibility for Computer Graphics and Image Processing which developed the CGM standard.

## Introduction

ISO/IEC ISP xxxxx is defined within the context of Functional Standardization in accordance with the principles specified in ISO/IEC TR 10000, "Framework and Taxonomy of International Standardized Profile".

This part of ISO/IEC ISP xxxxx was developed within the ANSI National Committee for Information Technology Standards (NCITS). Input to the process was also made by JTC1SC24 who provided CGM and Basic Imagery Interchange Format (BIIF DIS/IEC 12087-5: 1997) expertise. The work was harmonized at a meeting in xxx xxx prior to PDISP ballot.

This part of ISO/IEC ISP xxxxx provides a profile suitable for BIIF image annotation and storage capability.

# Information Technology - International Standardized Profile FCG-nnn - Computer Graphics Metafile Interchange Format -

## FCGxx - Basic Imagery and Mapping Annotation Graphics (BIMA)

### 1 Scope

#### 1.1 General

The Computer Graphics Metafile (CGM) provides a file format suitable for the storage and retrieval of picture information. The file format consists of a set of elements that can be used to describe pictures in a way that is compatible between systems of different architectures and devices of differing capabilities and design.

The BIMA profile, described in this part of ISO/IEC xxxxx, defines a subset of CGM elements, sets limits and generation and interpretation behavior according to the rules for profile definition defined in ISO/IEC 8632. The BIMA profile defines a version 1 CGM suitable for use in annotation of digital imagery such as that defined by BIIF DIS/IEC 12087-5: 1997.

#### 1.2 Position within the taxonomy

BIMA is single profile custom to imagery annotation defined within the taxonomy for CGM profiles.

The profiles is as follows:

Taxonomy identifier:	Profile Name:
FCG- xx	Basic Imagery and Mapping Annotation Graphics (BIMA) e.g. graphical annotation of digital imagery products

### 1.3 User requirements and scenario

This part of ISO/IEC ISP xxxxx provides a profile, BIMA, which has limited capability and is suited to the basic requirements for annotation of digital imagery such as that formatted according to BIIF DIS/IEC 12087-5.

## 2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this International Standardized Profile. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this International Standardized Profile are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by ISPs to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and ITU-T maintains published editions of its current recommendations.

ISO/IEC 8632:1992, *Information technology - Computer Graphics Metafile for the storage and transfer of picture description information, Part 1: Functional Specification*

ISO/IEC 8632:1992, *Information technology - Computer Graphics Metafile for the storage and transfer of picture description information, Part 2: Character Encoding*

ISO/IEC 8632:1992, *Information technology - Computer Graphics Metafile for the storage and transfer of picture description information, Part 3: Binary Encoding*

ISO/IEC 8632:1992, *Information technology - Computer Graphics Metafile for the storage and transfer of picture description information, Part 4: Clear Text Encoding*

ISO/IEC 8632:1992/Amd. 1: 1994, *Information Technology - Computer Graphics - Metafile for the storage and transfer of picture description information: - Part 1: Functional specification:*

*Amendment I - Rules for profiles; - Part 2: Character Encoding: Amendment I - Rules for profiles; -*

*Part 3: Binary Encoding: Amendment I - Rules for profiles; - Part 4: Clear text encoding: Amendment I - Rules for profiles*

ISO/IEC TR 10000- 1: 1992, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework (second edition)*

ISO/IEC TR 10000-2:1994, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and Taxonomy for OSI Profiles (third edition)*

### **3 Definitions**

For the purposes of this part of ISO/IEC ISP xxxxx the definitions given in ISO/IEC 8632:1992 apply.

### **4 Abbreviations**

For the purposes of this part of ISO/IEC ISP xxxxx the abbreviations given in ISO/IEC 8632:1992 apply.

### **5 Conformance**

Conformance of metafiles to ISO/IEC 8632 is defined in terms of conformance to profiles. A metafile conforms to ISO/IEC 8632 if it conforms to a profile. A metafile may conform to ISO/IEC 8632 if it conforms to the BIMA profile defined in this part of ISO/IEC ISP xxxxx.

### **6 Specification of the BIMA Profile**

**6.1 CGM Element Defaults.** The CGM implementation for BIMA shall assume the following CGM default values for input/output per Table 1. This is simply a statement of the “starting state” for creation of CGMs.

**TABLE 1. CGM element defaults for input/output.**

<b>ELEMENT</b>	<b>DEFAULT VALUE</b>	<b>REQUIRED IN FILE CREATION</b>
VDC TYPE:	16 BIT INTEGER	0
INTEGER PRECISION:	16 BIT INTEGER	0
INDEX PRECISION:	16 BIT INTEGER	0
COLOR PRECISION:	8 BIT INTEGER	0
TRANSPARENCY:	ON	0
LINE TYPE:	1 (SOLID)	R3
TEXT PRECISION:	STRING	0
CHARACTER EXPANSION FACTOR	1.0	0
CHARACTER SPACING:	0.0	0
CHARACTER ORIENTATION:	0, 1, 1, 0	R1
TEXT PATH:	RIGHT	0
TEXT ALIGNMENT:	NORMAL HORIZONTAL, NORMAL VERTICAL	0
INTERIOR STYLE:	HOLLOW (EMPTY)	R2
EDGE TYPE:	SOLID	R2
EDGE VISIBILITY:	OFF	R2
LINE COLOR:	DEVICE-DEPENDENT FOREGROUND COLOR	R3
EDGE COLOR:	DEVICE-DEPENDENT FOREGROUND COLOR	R2
FILL COLOR:	DEVICE-DEPENDENT FOREGROUND COLOR	R2
TEXT COLOR:	DEVICE-DEPENDENT FOREGROUND COLOR	R1
BACKGROUND COLOR:	NONE (THIS IS BIMA SPECIFIC)	0
COLOR VALUE EXTENT:	0, 0, 0 - 255, 255, 255	0



**TABLE 1. CGM element defaults for input/output.**

ELEMENT	DEFAULT VALUE	REQUIRED IN FILE CREATION
VDC INTEGER PRECISION:	16 BIT INTEGER	0
TEXT FONT INDEX:	1	R1
Colour Index Precision	8	0
Character Set Index	1	0
Auxiliary Colour	Device Dependent Auxiliary Colour	0
Line Width	2	R3
Character Height	21	R1
Edge Width	2	R2
Colour Selection Mode	Direct	R
Line Width Specification Mode	Absolute	R
Edge Width Specification Mode	Absolute	R

O-Optional, R- Always Required, R1- Required when text elements present, R2- Required when filled primitives present, R3- Required when line primitives present .

**6.2 BIMA Supported Font Names For Output.** The CGM implementation for BIMA shall limit the font name in the Font List element to the following list:

HERSHEY/CARTOGRAPHIC\_ROMAN

HERSHEY/CARTOGRAPHIC\_GREEK

HERSHEY/SIMPLEX\_ROMAN

HERSHEY/SIMPLEX\_GREEK

HERSHEY/SIMPLEX\_SCRIPT

HERSHEY/COMPLEX\_ROMAN

HERSHEY/COMPLEX\_GREEK

HERSHEY/COMPLEX\_SCRIPT

HERSHEY/COMPLEX\_ITALIC

HERSHEY/COMPLEX\_CYRILLIC

HERSHEY/DUPLEX\_ROMAN

HERSHEY/TRIPLEX\_ROMAN

HERSHEY/TRIPLEX\_ITALIC

HERSHEY/GOTHIC\_GERMAN

HERSHEY/GOTHIC\_ENGLISH

HERSHEY/GOTHIC\_ITALIAN

TIMES\_ROMAN

TIMES\_ITALIC

TIMES\_BOLD

TIMES\_BOLD\_ITALIC

HELVETICA

HELVETICA\_OBLIQUE

HELVETICA\_BOLD

HELVETICA\_BOLD\_OBLIQUE

COURIER

COURIER\_BOLD

COURIER\_ITALIC

COURIER\_BOLD\_ITALIC

### **6.3 Completed Profile Pro Forma**

This clause completes the Profile Pro Forma from ISO/IEC 8632 (Amendment 1) as required by the standard and is detailed in the following tables which are copied, including the table numbers, from that standard. The corrections which have been approved by ISO are included in the tables. The references in the pro forma are to ISO/IEC 8632 and to ISO/IEC 8632 Amendment 1.



**Table 13 - Metafile rules**

Functionality	Specifications - PPF	Specifications - Model Profile
T.13.1	Same as Model Profile <input type="checkbox"/>	
Encodings	Select 1 or more encodings:  Binary <input checked="" type="checkbox"/> Character <input type="checkbox"/> Char text <input type="checkbox"/>	Select 1 or more encodings:  Binary <input checked="" type="checkbox"/> Character <input checked="" type="checkbox"/> Char text <input checked="" type="checkbox"/>
T.13.2	Same as Model Profile <input type="checkbox"/>	
Number of pictures	Number of pictures permitted in a metafile: minimum ( $\geq 0$ )? <b><i>I.</i></b> maximum ( $\geq 0$ or no limit)? <b><i>I.</i></b>  Other: <b><i>None.</i></b>	Number of pictures permitted in a metafile: minimum ( $\geq 0$ )? <b><i>I.</i></b> maximum ( $\geq 0$ or no limit)? <b><i>No limit.</i></b>  Other: <b><i>None.</i></b>
T.13.3	Same as Model Profile <input type="checkbox"/>	
Empty pictures	Are pictures allowed which have no graphical primitives? (yes/no)  Other:	Are pictures allowed which have no graphical primitives? (yes/no) <b><i>Yes.</i></b>  Other: <b><i>None.</i></b>
T.13.4	Same as Model Profile <input type="checkbox"/>	
Metafile size	Any restrictions on metafile size? <b><i>Yes.</i></b>  Other: <b><i>1MB (1,048,576 bytes)</i></b>	Any restrictions on metafile size? <b><i>None.</i></b>  Other: <b><i>None.</i></b>

**Table 14 - Multi-element rules**

Functionality	Specifications - PPF	Specifications - Model Profile
T.14.1	Same as Model Profile <input type="checkbox"/>	
Colour References 7.5.4.1	<p>Select which rule applies to each metafile (choose 1):</p> <p>Either all colours or none shall be defined. <input type="checkbox"/></p> <p>All colours shall be defined. <input checked="" type="checkbox"/></p> <p>No colours shall be defined. <input type="checkbox"/></p> <p>Are colour indexes all allowed to be redefined within a picture or metafile? (yes/no) <b>Yes.</b></p> <p>Any restrictions on the number of distinct colours used within a picture or metafile? (Monochrome metafiles shall use at most two distinct colours.) <b>None.</b></p> <p>Are conformance categories defined? (yes/no) <b>Yes.</b> If yes, specify. <b>Colour 8 bit RGB only.</b></p> <p>Other: <b>This profile will always define foreground colours, but will leave background colour as undefined.</b></p>	<p>Select which rule applies to each metafile (choose 1):</p> <p>Either all colours or none shall be defined. <input checked="" type="checkbox"/></p> <p>All colours shall be defined. <input type="checkbox"/></p> <p>No colours shall be defined. <input type="checkbox"/></p> <p>Are colour indexes all allowed to be redefined within a picture or metafile? (yes/no) <b>No.</b></p> <p>Any restrictions on the number of distinct colours used within a picture or metafile? (Monochrome metafiles shall use at most two distinct colours.) <b>None.</b></p> <p>Are conformance categories defined? (yes/no) <b>Yes.</b> If yes, specify. <b>3 categories: monochrome, greyscale, and colour.</b></p> <p>Other: <b>None.</b></p>
T.14.2	Same as Model Profile <input type="checkbox"/>	
Line primitives - geometric degeneracies References 7.5.4.3	<p>Geometric degeneracies are: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>If permitted, graphical meaning of the degeneracy: <b>Degeneracies are not addressed for polylines. However, BIMA prohibits degeneracies for circular arc centre and elliptical arcs. When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</b></p> <p>Other:</p>	<p>Geometric degeneracies are: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>If permitted, graphical meaning of the degeneracy: <b>A line primitive element, whose entire locus is a single point, denotes a graphical dot which is a filled circle, with diameter equal to the current line width and colour equal to the current line colour.</b></p> <p>Other: <b>None.</b></p>

**Table 14 - Multi-element rules (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.14.3	Same as Model Profile <input type="checkbox"/>	
Filled area primitives - geometric degeneracies	Geometric degeneracies are: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> If permitted, graphical meaning of the degeneracy: <i>Degeneracies are not addressed for polygons, rectangles, circles, and ellipses. However, BIMA prohibits degeneracies for circular arc centre close and elliptical arc close. When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</i>	Geometric degeneracies are: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> If permitted, graphical meaning of the degeneracy: <i>A filled-area primitive element, whose entire locus is either a single point or a line has the following meaning:</i> - If the locus of a filled-area primitive is a single point, then the meaning is a dot (which is a filled circle). - If the locus of a filled-area primitive is a non-degenerate line segment, then the meaning is a line. <i>The dot or line is displayed with the fill colour if EDGE VISIBILITY is 'off', unless INTERIOR STYLE is 'empty', in which case it is not rendered. If EDGE VISIBILITY is 'on', the interior treatment is the dot or line displayed in the fill colour, and then a dot or line superimposed with the current edge attributes.</i>
References 7.5.4.4	Other:	Other: <i>None.</i>
T.14.4	Same as Model Profile <input checked="" type="checkbox"/>	
Graphical text strings	Minimum string length (bytes): Maximum string length (bytes): Any restrictions on the use of ISO/IEC 2022 switching controls?	Minimum string length (bytes): 0. Maximum string length (bytes): 254. Any restrictions on the use of ISO/IEC 2022 switching controls? <i>Any character set used in the metafile which is accessed by ISO/IEC 2022 switching techniques shall be in the Character Set List (defined in this profile). C0 control codes (except NUL and ISO/IEC 2022 switching are prohibited.</i>
References 7.5.4.5	Other:	Other: <i>None.</i>

**Table 14 - Multi-element rules (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.14.5  Non-graphical text strings  References 7.5.4.6	<p>Same as Model Profile <input type="checkbox"/></p> <p>Maximum string length (bytes): for type SF: <b><i>Begin Picture, Begin Metafile, 254 bytes, font list 1024 bytes.</i></b> for type SF within type D:</p> <p>Format effectors and ESC: Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> Other C0 control codes (except NUL and ISO/IEC 2022 switching) are prohibited.</p> <p>Any limits on the set of acceptable character sets? <b><i>Yes, ISO646 character set [space (32) through tilde (126)]</i></b></p> <p>Any restrictions on the use of ISO/IEC 2022 switching controls? <b><i>Yes, not permitted.</i></b></p> <p>Other: <b><i>None.</i></b></p>	<p>Maximum string length (bytes): for type SF: 254. for type SF within type D: 1024.</p> <p>Format effectors and ESC: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Other C0 control codes (except NUL and ISO/IEC 2022 switching) are prohibited.</p> <p>Any limits on the set of acceptable character sets? <i>The permitted character sets are ISO 8859-1 LHS No. 1 and ISO 8859-1 RHS No. 1.</i></p> <p>Any restrictions on the use of ISO/IEC 2022 switching controls? <i>Any character set used in the metafile which is accessed by ISO/IEC 2022 switching techniques shall be in the character set list (defined in this profile).</i></p> <p>Other: <i>None.</i></p>
T.14.6  Data record strings  References 7.5.4.7	<p>Same as Model Profile <input checked="" type="checkbox"/></p> <p>Maximum string length (bytes) or state "no limit":</p> <p>SDR-coding techniques must be used (see annex C.2.2).</p> <p>Other:</p>	<p>Maximum string length (bytes) or state "no limit": 32767.</p> <p>SDR-coding techniques must be used (see annex C.2.2).</p> <p>Other: <i>None.</i></p>



**Table 15 - Delimiter elements**

Element	Specifications - PPF	Specifications - Model Profile
T.15.1	Same as Model Profile <input checked="" type="checkbox"/>	
BEGIN METAFILE	Element is: Required <input type="checkbox"/>	Element is: Required <input checked="" type="checkbox"/>
END METAFILE [v1]	The <i>metafile identifier</i> shall follow the rules for non-graphical text. clause 7.5.4.6 and T.14.5.	The <i>metafile identifier</i> shall follow the rules for non-graphical text. clause 7.5.4.6 and T.14.5.
References 5.2.1 5.2.2 7.5.4.6 T.14.5	Other:	Other: <i>None</i> .
T.15.2	Same as Model Profile <input type="checkbox"/>	
BEGIN PICTURE	Element is: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>
BEGIN PICTURE BODY	The picture identifier shall follow the rules for non-graphical text. clause 7.5.4.6 and T.14.5	The picture identifier shall follow the rules for non-graphical text. clause 7.5.4.6 and T.14.5
END PICTURE [v1]	Number of occurrences of these elements allowed in the metafile: <i>1</i> .	Number of occurrences of these elements allowed in the metafile: <i>No limit</i> .
References 5.2.3 5.2.4 5.2.5 7.5.4.6 T.14.5	Other: <i>None</i> .	Other: <i>None</i> .

**Table 15 - Delimiter elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.15.3	Same as Model Profile <input type="checkbox"/>	
BEGIN SEGMENT	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>
END SEGMENT [v2]	Maximum number of simultaneously defined segments (both global and local) at any point in the metafile: .	Maximum number of simultaneously defined segments (both global and local) at any point in the metafile: 1024.
References 5.2.6 5.2.7	Any limits on the number of elements or restrictions on which elements compose a segment?  Is there any meaning given to the <i>segment identifier</i> parameter? (yes/no) If yes, specify. (Meaning shall have no graphical effect.)  Other:	Any limits on the number of elements or restrictions on which elements compose a segment? None.  Is there any meaning given to the <i>segment identifier</i> parameter? (yes/no) No. If yes, specify. (Meaning shall have no graphical effect.)  Other: When global segments are specified in the Metafile Descriptor, all global segment definitions shall follow all other Metafile Descriptor elements. When segments are specified in the Picture Descriptor, all such segment definitions shall follow all other Picture Descriptor elements.
T.15.4	Same as Model Profile <input type="checkbox"/>	
BEGIN FIGURE	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>
END FIGURE [v2]	Limits on the number of elements or restrictions on which elements comprise a figure definition:	Limits on the number of elements or restrictions on which elements comprise a figure definition: Maximum number of elements = 128. No restrictions on which eligible elements may be included.
References 5.2.8 5.2.9	Other:	Other: None.

**Table 15 - Delimiter elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.15.5	Same as Model Profile <input type="checkbox"/>	
BEGIN PROTECTION REGION  END PROTECTION REGION [v3]  References 5.2.10 5.2.11	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Maximum number of simultaneously defined protection regions:</p> <p>Maximum number of elements within each protection region:</p> <p>Is there any meaning to the <i>region index</i> parameter other than as a unique identifier for each protection region? (yes/no)</p> <p>If yes, specify. (Meaning shall have no graphical effect.)</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Maximum number of simultaneously defined protection regions: 32.</p> <p>Maximum number of elements within each protection region: 128.</p> <p>Is there any meaning to the <i>region index</i> parameter other than as a unique identifier for each protection region? (yes/no) <i>No</i>.</p> <p>If yes, specify. (Meaning shall have no graphical effect.)</p> <p>Other: <i>None</i>.</p>
T.15.6	Same as Model Profile <input type="checkbox"/>	
BEGIN COMPOUND LINE  END COMPOUND LINE [v3]  References 5.2.12 5.2.13	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Limits on the number of elements and identity of elements comprising a path definition:</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Limits on the number of elements and identity of elements comprising a path definition: <i>Maximum number of elements is 128. No restrictions on which eligible elements may be included.</i></p> <p>Other: <i>None</i>.</p>

**Table 15 - Delimiter elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.15.7	Same as Model Profile <input type="checkbox"/>	
BEGIN COMPOUND TEXT PATH  END COMPOUND TEXT PATH [v3]  References 5.2.14 5.2.15	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Limits on the number and identity of elements comprising a path definition:</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Limits on the number and identity of elements comprising a path definition: <i>Maximum number of elements is 128. No restrictions on which eligible elements may be included.</i></p> <p>Other: <i>None.</i></p>
T.15.8	Same as Model Profile <input type="checkbox"/>	
BEGIN TILE ARRAY  END TILE ARRAY [v3]  References 5.2.16 5.2.17	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Maximum number of tiles in path direction:</p> <p>Maximum number of tiles in line direction:</p> <p>Maximum number of cells/tile in path direction:</p> <p>Maximum number of cells/tile in line direction:</p> <p>Limits on pel path:</p> <p>Limits on line progression:</p> <p>Limits on image offset:</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Maximum number of tiles in path direction: <i>16.</i></p> <p>Maximum number of tiles in line direction: <i>16.</i></p> <p>Maximum number of cells/tile in path direction: <i>1024.</i></p> <p>Maximum number of cells/tile in line direction: <i>1024.</i></p> <p>Limits on pel path: <i>None.</i></p> <p>Limits on line progression: <i>None.</i></p> <p>Limits on image offset: <i>None.</i></p> <p>Other: <i>None.</i></p>

**Table 16 - Metafile descriptor elements**

Element	Specifications - PPF	Specifications - Model Profile
T.16.1	Same as Model Profile <input type="checkbox"/>	
METAFILE VERSION [v1]  References 5.3.1	Element is: Required <input checked="" type="checkbox"/>  Metafile versions permitted by this profile: <i>1</i> .  Other: <i>None</i> .	Element is: Required <input checked="" type="checkbox"/>  Metafile versions permitted by this profile: <i>1, 2, 3</i> .  Other: <i>None</i> .
T.16.2	Same as Model Profile <input type="checkbox"/>	
METAFILE DESCRIPTION [v1]  References 5.3.2 7.5.2.1 7.5.2.2 7.5.4.6 T.14.1 T.14.5	Element is: Required <input checked="" type="checkbox"/>  The <i>description</i> parameter shall follow the rules for non-graphical text, clause 7.5.4.6 and T.14.5. The substring within the SF parameter shall be of the form: "keyword:item", where the double quotes are part of the substring.  Maximum number of occurrences of this element? <i>Unlimited</i> .  Profile identification (use keyword, "ProfileId:"): <i>"ProfileId:BIMA"</i>  Profile edition (use keyword, "ProfileEd:"): <i>"ProfileEd: 1"</i> . If this profile edition is not given, then the edition defaults to 1.	Element is: Required <input checked="" type="checkbox"/>  The <i>description</i> parameter shall follow the rules for non-graphical text, clause 7.5.4.6 and T.14.5. The substring within the SF parameter shall be of the form: "keyword:item", where the double quotes are part of the substring.  Maximum number of occurrences of this element? <i>Unlimited</i> .  Profile identification (use keyword, "Profiled:"): <i>"ProfileId:Model-Profile"</i> .  Profile edition (use keyword, "Profiled:"): <i>"ProfileEd:1"</i> . If this profile edition is not given, then the edition defaults to 1.

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.2 continued METAFILE DESCRIPTION	<p>Additional information content: Metafile colour conformance class, source, and date items shall be encoded as substrings of the <i>description</i> parameter using the keywords: "ColourClass:", "Source:", and "Date:", respectively.</p> <p>ColourClass: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Content:</p> <p>Source: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Content:</p> <p>Date: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Content shall be date of metafile generation. The form and content shall be YYYYMMDD where: YYYY = year (1997 - 1998) MM = month (01 - 12) DD = day (01 - 31)</p> <p>Other: <i>None.</i></p>	<p>Additional information content: Metafile colour conformance class, source, and date items shall be encoded as substrings of the <i>description</i> parameter using the keywords: "ColourClass:", "Source:", and "Date:", respectively.</p> <p>ColourClass: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/> Content: <i>(One of: colour, greyscale, or monochrome).</i></p> <p>Source: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/> Content: <i>(Vendor, product, and version).</i></p> <p>Date: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/> Content shall be date of metafile generation. <i>The form and content shall be in accordance with ISO 8601:1988.</i></p> <p>Other: <i>None.</i></p>
T.16.3	Same as Model Profile <input type="checkbox"/>	
VDC TYPE [v1]  Reference: 5.3.3	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>Yes, 16 bit only.</i></p> <p>Other: <i>None.</i></p>	<p>Element is: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.16.4	Same as Model Profile <input type="checkbox"/>	
INTEGER PRECISION [v1]  References: 5.3.4	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>16 bit only.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.5  REAL PRECISION [v1]  References: 5.3.5	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/></p> <p><b>NOTE - Prohibited per binary encoding Table T.13.2.</b></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>
T.16.6  INDEX PRECISION [v1]  Reference: 5.3.6	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>16 bit only. Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>
T.16.7  COLOUR PRECISION [v1]  References: 5.3.7	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>8 bit only. Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.8  COLOUR INDEX PRECISION [v1]  References: 5.3.8	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.  Other: <i>As BIMA only allows color selection mode of 1, this is not applicable.</i>	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.  Other: <i>None.</i>
T.16.9  MAXIMUM COLOUR INDEX [v1]  Reference: 5.3.9	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Is this element required to be a least upper bound? (yes/no)  Any restrictions on the parameter values?  Other:	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is this element required to be a least upper bound? (yes/no) <i>No.</i>  Any restrictions on the parameter values? <i>0-1 for monochrome metafiles.</i> <i>0-63 for greyscale metafiles.</i> <i>0-255 for colour metafiles.</i>  Other: <i>None.</i>
T.16.10  COLOUR VALUE EXTENT [v1]  References: 5.3.10	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>0, 0, 0, 255, 255, 255.</i>  Other: <i>16 bit only.</i>	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>



**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.11	Same as Model Profile <input type="checkbox"/>	
METAFILE ELEMENT LIST [v1]  References 5.3.11	Element is: Required <input checked="" type="checkbox"/>  Other: <i>Fixed 0x0001, 0xFFFF, 0x0001.</i>	Element is: Required <input checked="" type="checkbox"/>  Other: <i>None.</i>
T.16.12	Same as Model Profile <input type="checkbox"/>	
METAFILE DEFAULTS REPLACEMENT [v1]  References 5.3.12	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Is each occurrence of the MDR restricted to defining just one default? (yes/no)  Additional restrictions may be specified in parts 2, 3, and 4 of ISO/IEC 8632.  <i>NOTE - Profile specifications regarding use of MDR shall be consistent with other profile specifications. For example, if a profile restricts metafiles to a single picture, then it makes little sense for the profile to require the MDR element in metafiles.</i>  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is each occurrence of the MDR restricted to defining just one default? (yes/no) <i>No.</i>  Additional restrictions may be specified in parts 2, 3, and 4 of ISO/IEC 8632.  Other: <i>None.</i>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.13  FONT LIST [v1]  References: 5.3.13 annex H	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> This element is required for all metafiles containing graphical text.  Maximum number of fonts in the list: 32.  All font indexes referenced in the metafile, including the default (nominally index 1) shall be defined in the FONT LIST element, with font name construction consistent with the rules of ISO/IEC 9541.  List of permitted fonts: <i>See Font List, clause 6.2.</i>          Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> This element is required for all metafiles containing graphical text.  Maximum number of fonts in the list: 64.  All font indexes referenced in the metafile, including the default (nominally index 1) shall be defined in the FONT LIST element, with font name construction consistent with the rules of ISO/IEC 9541.  List of permitted fonts: <i>Times-Roman</i> <i>Helvetica-BoldOblique</i> <i>Times-Bold</i> <i>Courier</i> <i>Times-Italic</i> <i>Courier-Bold</i> <i>Times-BoldItalic</i> <i>Courier-Oblique</i> <i>Helvetica</i> <i>Courier-BoldOblique</i> <i>Helvetica-Bold</i> <i>Symbol</i> <i>Helvetica-Oblique</i>  <i>NOTE - These font names are trademarked and some are proprietary and copyrighted. Times and Helvetica are registered trademarks of Allied Corporation, the owner of the copyright on the fonts of those names. Metric equivalents of the named fonts may be substituted by interpreters. Times is a serif font. Helvetica is a sans-serif font. Courier is a mono spaced, serif font. The association of character code to glyph which shall be used for each of the fonts and the metrics of the named fonts are contained in annex H.</i>  Other: <i>None.</i>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.14  CHARACTER SET LIST [v1]  References 5.3.14	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>This element is required for all metafiles containing graphical text.</p> <p>Maximum limit for the number of character sets in the character set list: <b>1</b>.</p> <p>Character sets shall be selected from the ISO Registry of Character Sets. This list may be extended by adding profile-defined character sets. List character sets: <b>ISO646 Character Set</b>.</p> <p><i>Note - Found in Chapter 6 of ISO 8632.</i></p> <p>If any of these character sets is of type "complete code", specify the content of the complete code and its associated sequence tail: <b>N/A</b></p> <p>Other: <b>None</b>.</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>This element is required for all metafiles containing graphical text.</p> <p>Maximum limit for the number of character sets in the character set list: <b>4</b>.</p> <p>Character sets shall be selected from the ISO Registry of Character Sets. This list may be extended by adding profile-defined character sets. List character sets:  <i>'94-character G-set', 4/2 (ISO 8859-1 LH);  '96-character G-set', 4/1 (ISO 8859-1 RH);  '94-character G-set', 2/10 3/10 (Symbol LH);  '94-character G-set', 2/6 3/10 (Symbol RH);</i></p> <p>If any of these character sets is of type "complete code", specify the content of the complete code and its associated sequence tail: <b>Not applicable</b>.</p> <p>Other: <b>None</b>.</p>
T.16.15  CHARACTER CODING ANNOUNCER [v1]  References 5.3.15	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter values?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values? <b>Values shall be 'basic 7-bit' and 'basic 8-bit'.</b></p> <p>Other: <b>None</b>.</p>

**Table 16 - Metafile descriptor elements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.16.16 NAME PRECISION [v2]  References: 5.3.16	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/></p> <p><b>NOTE - BIMA supports version 1 only.</b></p> <p>The parameter value of this element is coding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter value of this element is encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other:</p>
T.16.17 MAXIMUM VDC EXTENT [v2]  References: 5.3.17	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter values?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.16.18 SEGMENT PRIORITY EXTENT [v2]  References: 5.3.18	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter values?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values?</p> <p>Other: <i>None.</i></p>
T.16.19 COLOUR MODEL [v3]  References: 5.3.19	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values? <b>Yes, RGB only.</b></p> <p>Other: <b>None. Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</b></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values? <i>None.</i></p> <p>Other: <i>None.</i></p>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.20	Same as Model Profile <input type="checkbox"/>	
COLOUR CALIBRATION [v3]  References 5.3.20	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Calibration selection values permitted in accordance with the permitted model(s):</p> <p>If CYMK is permitted, minimum number of grid locations:</p> <p>Any restrictions on the number of colour lookup table entries, n?</p> <p>Any restrictions on the number of grid locations, m?</p> <p>If CYMK is permitted, algorithms for interpolation between grid locations?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Calibration selection values permitted in accordance with the permitted model(s): <i>Values 1...6, 9.</i></p> <p>If CYMK is permitted, minimum number of grid locations: <i>1.</i></p> <p>Any restrictions on the number of colour lookup table entries, n? <i>None.</i></p> <p>Any restrictions on the number of grid locations, m? <i>None.</i></p> <p>If CYMK is permitted, algorithms for interpolation between grid locations? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.16.21	Same as Model Profile <input type="checkbox"/>	
FONT PROPERTIES [v3]  References 5.3.21	<p>Element is : Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter values?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter values? <i>All defined index and enumerated values of all parameters shall be permitted.</i></p> <p>Other: <i>None.</i></p>

**Table 16 - Metafile descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.16.22  GLYPH MAPPING [v3]  References 5.3.22	Same as Model Profile <input type="checkbox"/>  Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Subset of AFH registered glyphs which may be referenced:  Maximum number of glyphs which may be defined:  Other:	Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Subset of AFH registered glyphs which may be referenced: <i>None.</i>  Maximum number of glyphs which may be defined: <i>8192.</i>  Other: <i>None.</i>
T.16.23  SYMBOL LIBRARY LIST [v3]  References 5.3.23	Same as Model Profile <input checked="" type="checkbox"/>  Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Libraries which may be accessed and their encoding rules:  Maximum number of libraries which may be accessed:  Other:	Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Libraries which may be accessed and their encoding rules:  Maximum number of libraries which may be accessed:  Other: <i>NOTE - There are currently no registered symbol libraries.</i>

**Table 17 - Picture descriptor elements**

Element	Specifications - PPF	Specifications - Model Profile
T.17.1  SCALING MODE [v1]  References: 5.4.1	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter values? <i>If SCALING MODE is metric then the 'metric scale factor' shall be positive.</i>  Other: <i>None.</i>
T.17.2  COLOUR SELECTION MODE [v1] [v2]  References: 5.4.2	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/>  Any restrictions on the parameter values? <i>Yes, always 0X0001.</i>  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>
T.17.3  LINE WIDTH SPECIFICATION MODE [v1] [v2]  References: 5.4.3	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/>  Any restrictions on the parameter values? <i>Yes, always 0X0000.</i>  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>

**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.4  MARKER SIZE SPECIFICATION MODE [v1] [v2]  References: 5.4.4	Same as Model Profile <input checked="" type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/>  Any restrictions on the parameter values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>
T.17.5  EDGE WIDTH SPECIFICATION MODE [v1] [v2]  References: 5.4.5	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input checked="" type="checkbox"/> Permitted <input type="checkbox"/>  Any restrictions on the parameter values? <i>Yes, always 0X0000.</i>  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>
T.17.6  VDC EXTENT [v1]  References: 5.4.6	Same as Model Profile <input checked="" type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/>  Limits on the sense and orientation of the VDC space:  Is zero-area VDC extent permitted? (yes/no). If yes, specify its meaning.  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Limits on the sense and orientation of the VDC space: <i>None.</i>  Is zero-area VDC extent permitted? (yes/no) <i>No.</i> If yes, specify its meaning.  Other: <i>None.</i>



**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.7  BACKGROUND COLOUR [v1]  References: 5.4.7 7.5.4.1 T.14.1	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The <i>colour value</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Other: <i>If background color not included default is transparent. If background color is included it should be used but the VDC should limit the extent.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The <i>colour value</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Other: <i>None.</i></p>
T.17.8  DEVICE VIEWPORT [v2]  References: 5.4.8	<p>Same as Model Profile <input checked="" type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Interaction of this element with environmental presentation directives:</p> <p>Meaning of this element if the specified value is inconsistent with the presentation device:</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Interaction of this element with environmental presentation directives:</p> <p>Meaning of this element if the specified value is inconsistent with the presentation device:</p> <p>Other: <i>NOTE - This element is prohibited due to its device dependence.</i></p>
T.17.9  DEVICE VIEWPORT SPECIFICATION MODE [v2]  References: 5.4.9	<p>Same as Model Profile <input checked="" type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Set of legal values:</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Set of legal values:</p> <p>Other: <i>NOTE - This element is prohibited due to its device dependence.</i></p>

**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.10  DEVICE VIEWPORT MAPPING [v2]  References: 5.4.10	Same as Model Profile <input checked="" type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Set of legal values:   Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Set of legal values:   Other: <i>NOTE - This element is prohibited due to its device dependence.</i>
T.17.11  LINE REPRESENTATION [v2]  References: 5.4.11 7.5.2.6 7.5.4.2 T.20.1	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneous bundle definitions:  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of simultaneous bundle definitions: 20.  Other: <i>None.</i>
T.17.12  MARKER REPRESENTATION [v2]  References: 5.4.12 7.5.2.6 7.5.4.2 T.20.5	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneous bundle definitions:  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of simultaneous bundle definitions: 20.  Other: <i>None.</i>

**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.13	Same as Model Profile <input type="checkbox"/>	
TEXT REPRESENTATION [v2]  References: 5.4.13 7.5.2.6 7.5.4.2 T.20.9	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneous bundle definitions:   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  :Maximum number of simultaneous bundle definitions: 20.   Other: None.
T.17.14	Same as Model Profile <input type="checkbox"/>	
FILL REPRESENTATION [v2]  References: 5.4.14 7.5.2.6 7.5.4.2 T.20.21	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneous bundle definitions:   Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of simultaneous bundle definitions: 20.   Other: None.
T.17.15	Same as Model Profile <input type="checkbox"/>	
EDGE REPRESENTATION [v2]  References: 5.4.15 7.5.2.6 7.5.4.2 T.20.26	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneous bundle definitions:   Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of simultaneous bundle definitions: 20.   Other: None.

**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.16  INTERIOR STYLE SPECIFICATION MODE [v3]  References: 5.4.16	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restriction on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restriction on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.17.17  LINE AND EDGE TYPE DEFINITION [v3]  References: 5.4.17	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the number of definitions?  Any limits on the number of elements in a given definition?  Any restrictions on the dash cycle repeat length?  Any restrictions on complexity of definition to prevent degeneracies?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any limits on the number of definitions? <i>Maximum of 32 line types shall be specified simultaneously.</i>  Any limits on the number of elements in a given definition? <i>Number of values in the dash gap list shall not exceed 8.</i>  Any restrictions on the dash cycle repeat length? <i>None.</i>  Any restrictions on complexity of definition to prevent degeneracies? <i>None.</i>  Other: <i>None.</i>

**Table 17 - Picture descriptor elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.17.18  HATCH STYLE DEFINITION [v3]  References: 5.4.18	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Limit on the number of hatch styles?  Limit on the number of gaps in a given definition?  Any limits on duty cycle length?  Any restrictions on complexity of definition to prevent degeneracies?  Any restrictions on the style indicator:  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Limit on the number of hatch styles? <i>Maximum of 32 hatch styles shall be specified simultaneously.</i>  Limit on the number of gaps in a given definition? <i>Number of entries in the gap width list shall not exceed 8.</i>  Any limits on duty cycle length? <i>None.</i>  Any restrictions on complexity of definition to prevent degeneracies? <i>None.</i>  Any restrictions on the style indicator: <i>None.</i>  Other: <i>None.</i>
T.17.19  GEOMETRIC PATTERN DEFINITION [v3]  References: 5.4.19	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the number of geometric patterns defined? <i>NOTE - The number of geometric patterns cannot exceed the number of segments.</i>  Any limits on the classes of primitives?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any limits on the number of geometric patterns defined? <i>The maximum number of geometric patterns is 64.</i>  Any limits on the classes of primitives? <i>None.</i>  Other: <i>None.</i>

**Table 18 - Control Elements**

Element	Specifications - PPF	Specifications - Model Profile
T.18.1  VDC INTEGER PRECISION [v1]  References: 5.5.1	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter values of this element are encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>16 bit only. Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter values of this element are encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>
T.18.2  VDC REAL PRECISION [v1]  References: 5.5.2	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/></p> <p><i>NOTE - Prohibited per binary encoding Table T.14.2.</i></p> <p>The parameter values of this element are encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/></p> <p>The parameter values of this element are encoding dependent. Restrictions are specified in parts 2, 3, and 4 of ISO/IEC 8632.</p> <p>Other: <i>None.</i></p>
T.18.3  AUXILIARY COLOUR [v1]  References: 5.5.3 7.5.4.1 T.14.1 D.4.4.1	<p>Same as Model Profile <input checked="" type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>The auxiliary colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The auxiliary colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Other: <i>None.</i></p>

**Table 18 - Control Elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.18.4  TRANSPARENCY [v1]  References: 5.4.4 T.14.1	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>Yes, on 'only.</i></p> <p>Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.18.5  CLIP RECTANGLE [v1]  References: 5.5.5 D.4.4.2	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Meaning of boundary cases for: zero-area: area greater than VDC extent: additional cases?</p> <p><i>NOTE - Because objects "inside and on the boundary are drawn", then zero area does not have the sometimes claimed effect of hiding subsequent primitives - there will be a visible effect, a dot or a line, if the object intersects the boundary of the degenerate area.</i></p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Meaning of boundary cases for: zero-area: <i>Prohibited.</i> area greater than VDC extent: <i>Clipping shall be done to the intersection of CLIP RECTANGLE and VDC EXTENT.</i> additional cases? <i>None.</i></p> <p>Other: <i>None.</i></p>

**Table 18 - Control Elements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.18.6  CLIP INDICATOR [v1]  References: 5.5.6	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.18.7  LINE CLIPPING MODE [v2]  References: 5.5.7 D.4.4.3	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.18.8  MARKER CLIPPING MODE [v2]  References: 5.5.8 D.4.4.3	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.18.9  EDGE CLIPPING MODE [v2]  References: 5.5.9 D.4.4.3	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>



**Table 18 - Control Elements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.18.10  NEW REGION [v2]  References: 5.5.10	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  This element shall be permitted only if <b>BEGIN FIGURE</b> is permitted.  Any restrictions on the number of occurrences?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  This element shall be permitted only if <b>BEGIN FIGURE</b> is permitted.  Any restrictions on the number of occurrences? <i>None.</i>  Other: <i>None.</i>
T.18.11  SAVE PRIMITIVE CONTEXT [v2]  References: 5.5.11	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of simultaneously saved contexts:  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of simultaneously saved contexts: <i>1024.</i>  Other: <i>None.</i>
T.18.12  RESTORE PRIMITIVE CONTEXT [v2]  References: 5.5.12	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  This element is permitted only if <i>SAVE PRIMITIVE CONTEXT</i> is permitted.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  This element is permitted only if <i>SAVE PRIMITIVE CONTEXT</i> is permitted.  Other: <i>None.</i>

**Table 18 - Control Elements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.18.13  PROTECTION REGION INDICATOR [v3]  References: 5.5.13	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  This element shall be permitted only if <i>BEGIN PROTECTION REGION</i> is permitted.   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  This element shall be permitted only if <i>BEGIN PROTECTION REGION</i> is permitted.   Other: <i>None.</i>
T.18.14  GENERALIZED TEXT PATH MODE [v3]  References: 5.5.14	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>   Other: <i>None.</i>
T.18.15  MITRE LIMIT [v3]  References: 5.5.15	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>   Other: <i>None.</i>

**Table 18 - Control Elements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.18.16  TRANSPARENT CELL COLOUR [v3]  References: 5.5.16	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The transparent cell colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The transparent cell colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter values? <i>None.</i>  Other: <i>None.</i>

**Table 19 - Graphical primitive elements**

Element	Specifications - PPF	Specifications - Model Profile
T.19.1  POLYLINE [v1]  References: 5.6.1 7.5.4.3 D.2.2.1	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points or state "no limit":  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points or state "no limit": 4096.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: None.
T.19.2  DISJOINT POLYLINE [v1]  References: 5.6.2 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of points or state "no limit":  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points or state "no limit": 4096.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: None.
T.19.3  POLYMARKER [v1]  References: 5.6.3	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of points or state "no limit":  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points or state "no limit": 4096.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: None.

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.4  TEXT [v1]  References: 5.6.4 7.5.4.5	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Is the 'not final' flag allowed: (yes/no) <b>No, append text not permitted.</b>  Other: <b>None.</b>	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Is the 'not final' flag allowed: (yes/no) <b>Yes.</b>  Other: <b>None.</b>
T.19.5  RESTRICTED TEXT [v1]  References: 5.6.5 7.5.4.5 T.25.7 D.4.5.2	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Is the 'not final' flag allowed: (yes/no)  For [v1/2] metafiles, is the realization of <i>RESTRICTED TEXT</i> according to one of the standard or registered values for <i>RESTRICTED TEXT TYPE</i> ? (yes/no) If yes, specify.  For [v3] metafiles, <i>RESTRICTED TEXT TYPE</i> shall be used if this element is used.  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Is the 'not final' flag allowed: (yes/no) <b>Yes.</b>  For [v1/2] metafiles, is the realization of <i>RESTRICTED TEXT</i> according to one of the standard or registered values for <i>RESTRICTED TEXT TYPE</i> ? (yes/no) If yes, specify. <b>Boxed-cap, also see T.25.7.</b>  For [v3] metafiles, <i>RESTRICTED TEXT TYPE</i> shall be used if this element is used.  Other: <b>None.</b>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.6  APPEND TEXT [v1]  References: 5.6.6 7.5.4.5 D.4.5.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The string parameter shall follow the rules for graphical text, clause 7.5.4.5.  Other: <i>None.</i>
T.19.7  POLYGON [v1]  References: 5.6.7 7.5.4.4 D.2.2.2	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points:  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points: <i>4096.</i>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.8  POLYGON SET [v1]  References: 5.6.8 7.5.4.4 D.2.2.2	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points:  Number of polygons in a set?  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points: <i>4096.</i>  Number of polygons in a set? <i>No limit.</i>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>Each individual polygon within a set shall have at least 3 points.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.9  CELL ARRAY [v1]  References: 5.6.9 D.4.5.3	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Limit for nx:</p> <p>Limit for ny:</p> <p>Limit for nx * ny:</p> <p>Are rotated and skewed cell arrays allowed? (yes/no) If yes, specify the graphical meaning.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Limit for nx: 2048.</p> <p>Limit for ny: 2048.</p> <p>Limit for nx * ny: 4194304.</p> <p>Are rotated and skewed cell arrays allowed? (yes/no) No. If yes, specify the graphical meaning.</p> <p>Other: Zero-area arrays are prohibited.</p>
T.19.10  GENERALIZED DRAWING PRIMITIVE [v1]  References: 5.6.10	<p>Same as Model Profile <input checked="" type="checkbox"/></p> <p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>List all registered GDP 's that are allowed:</p> <p>List all profile-defined GPD 's that are allowed and attach complete description: <i>NOTE - Only registered GPD's and profile-defined GPD's shall be allowed in profiles.</i></p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>List all registered GDP 's that are allowed:</p> <p>List all profile-defined GPD 's that are allowed and attach complete description: <i>NOTE - Only registered GPD's and profile-defined GPD's shall be allowed in profiles.</i></p> <p>Other:</p>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.11  RECTANGLE [v1]  References: 5.6.11 7.5.4.4 D.2.2.2	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.12  CIRCLE [v1]  References: 5.6.12 7.5.4.3 D.2.2.2	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.13  CIRCULAR ARC 3 POINT [v1]  References: 5.6.13 7.5.4.3 D.2.2.2 D.4.5.4	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>Each individual polygon within a set shall have at least 3 points.</i>



**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.14  CIRCULAR ARC 3 POINT CLOSE [v1]  References: 5.6.14 7.5.4.4 D.2.2.2 D.4.5.5	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.15  CIRCULAR ARC CENTRE [v1]  References: 5.6.15 7.5.4.3 D.2.2.2 D.4.5.6	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</i>	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>
T.19.16  CIRCULAR ARC CENTRE CLOSE [v1]  References: 5.6.13 7.5.4.4 D.2.2.2 D.4.5.7	Same as Model Profile <input type="checkbox"/>  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</i>	  Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.17  ELLIPSE [v1]  References: 5.6.17 7.5.4.3 D.4.5.9 D.4.5.10	Same as Model Profile <input checked="" type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.18  ELLIPTICAL ARC [v1]  References: 5.6.18 7.5.4.3 D.2.2.1 D.4.5.11	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>
T.19.19  ELLIPTICAL ARC CLOSE [v1]  References: 5.6.19 7.5.4.4 D.2.2.2 D.4.5.12	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>When producing circular or elliptical arcs, the CGM implementation will not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.20  CIRCULAR ARC CENTRE REVERSED [v2]  References: 5.6.20 7.5.4.3 D.2.2.1 D.4.5.8	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-area geometric degeneracies shall be as defined in clause 7.5.4.4.  Other: <i>None.</i>
T.19.21  CONNECTING EDGE [v2]  References: 5.6.21 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  This element shall be permitted only if <b>BEGIN/END FIGURE</b> is permitted.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  This element shall be permitted only if <b>BEGIN/END FIGURE</b> is permitted.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>
T.19.22  HYPERBOLIC ARC [v3]  References: 5.6.22 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.23  PARABOLIC ARC [v3]  References: 5.6.23 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>
T.19.24  NON-UNIFORM B-SPLINE [v3]  References: 5.6.24 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Set of spline orders:  Maximum number of control points:  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Set of spline orders: <i>Cubic spline.</i>  Maximum number of control points: <i>4096.</i>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>
T.19.25  NON-UNIFORM RATIONAL B-SPLINE [v3]  References: 5.6.25 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Set of spline orders:  Maximum number of control points:  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Set of spline orders: <i>Cubic spline.</i>  Maximum number of control points: <i>4096.</i>  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: <i>None.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.26  POLYBEZIER [v3]  References: 5.6.26 7.5.4.3 D.2.2.1	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Maximum number of points:  Any restrictions on the continuity indicator?  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum number of points: 4096.  Any restrictions on the continuity indicator? None.  Zero-length geometric degeneracies shall be as defined in clause 7.5.4.3.  Other: None.
T.19.27  POLYSYMBOL [v3]  References: 5.6.27 D.2.2.1	Same as Model Profile <input checked="" type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Point list:  Effect of a reference to a symbol index parameter which is not in the symbol library:  Other:	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Point list:  Effect of a reference to a symbol index parameter which is not in the symbol library:  Other: <i>NOTE - This element is prohibited because SYMBOL LIBRARY LIST is prohibited.</i>

**Table 19 - Graphical primitive elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.19.28  BITONAL TILE [v3]  References: 5.6.28 D.2.2.1 D.4.5.13	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  List allowable compression types:  Requirements on row padding:     Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  List allowable compression types: <i>Values 0..6.</i>  Requirements on row padding: <i>None.</i>     Other: <i>CCITT compression methods (T6 and T4) should be used with 1 bit cell colour precision and indexed colour.</i>  <i>NOTE - Work is in progress on registration of JPEG. When JPEG is registered, it may be added to the allowable compression type values in a future edition of this profile.</i>
T.19.29  TILE [v3]  References: 5.6.29 D.2.2.1 D.4.5.13	Same as Model Profile <input type="checkbox"/>	
	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  List allowable compression types:  Requirements on row padding:     Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  List allowable compression types: <i>Values 0..6.</i>  Requirements on row padding: <i>None.</i>     Other: <i>CCITT compression methods (T6 and T4) should be used with 1 bit cell colour precision and indexed colour.</i>  <i>NOTE - Work is in progress on registration of JPEG. When JPEG is registered, it may be added to the allowable compression type values in a future edition of this profile.</i>

**Table 20 - Attribute elements**

Element	Specifications - PPF	Specifications - Model Profile																								
T.20.1	Same as Model Profile <input type="checkbox"/>																									
LINE BUNDLE INDEX [v1]  References: 5.7.1 7.5.4.2 D.4.6.1 T.17.11	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The line bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values:  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.    Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The line bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values: 1..5. <table><tr><td><u>Index</u></td><td><u>1</u></td><td><u>2</u></td><td><u>3</u></td><td><u>4</u></td><td><u>5</u></td></tr><tr><td><i>line type</i></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td><i>line width</i></td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td></tr><tr><td><i>line colour</i></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.   Other: None.	<u>Index</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<i>line type</i>	1	2	3	4	5	<i>line width</i>	1.0	1.0	1.0	1.0	1.0	<i>line colour</i>	1	1	1	1	1
<u>Index</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>																					
<i>line type</i>	1	2	3	4	5																					
<i>line width</i>	1.0	1.0	1.0	1.0	1.0																					
<i>line colour</i>	1	1	1	1	1																					
T.20.2	Same as Model Profile <input type="checkbox"/>																									
LINE TYPE [v1]  References: 5.7.2 5.4.17 D.4.6.2	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Select 1 or more of the following: <div><input checked="" type="checkbox"/> values 1..5: 1 and 2</div> <div><input checked="" type="checkbox"/> subset of registered values (attach list): Solid Line (1), Dash Line (2)</div> <div><input type="checkbox"/> profile-defined values (attach complete description):</div> For [v3] metafiles, <div><input type="checkbox"/> Negative values assigned by the LINE AND EDGE TYPE DEFINITION element.</div>  Other: <i>By default line type will be solid if not specified.</i>	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Select 1 or more of the following: <div><input checked="" type="checkbox"/> values 1..5:</div> <div><input type="checkbox"/> subset of registered values (attach list):</div> <div><input type="checkbox"/> profile-defined values (attach complete description):</div> For [v3] metafiles, <div><input checked="" type="checkbox"/> Negative values assigned by the LINE AND EDGE TYPE DEFINITION element.</div>  Other: None.																								

**Table 20 - Attribute elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.3	Same as Model Profile <input type="checkbox"/>	
LINE WIDTH [v1]  References: 5.7.3 D.4.6.3	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is value zero allowed? (yes/no) No If yes, specify its meaning.  Any restrictions on the parameter value? Yes, 1 to 100 pixels.  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is value zero allowed? (yes/no) Yes. If yes, specify its meaning. <i>Minimum available line width.</i>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.20.4	Same as Model Profile <input type="checkbox"/>	
LINE COLOUR [v1]  References: 5.7.4 7.5.4.1 T.14.1	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The line colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value? RGB only.  Other: <i>By default Line Colour will be device dependent foreground colour if not specified.</i>	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The line colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>



**Table 20 - Attribute elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile																								
T.20.5	Same as Model Profile <input type="checkbox"/>																									
MARKER BUNDLE INDEX [v1]  References: 5.7.5 7.5.4.2 T.17.12 D.4.6.1	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The line bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values:  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The line bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values: 1..5. <table><tr><td><i>Index</i></td><td><u>1</u></td><td><u>2</u></td><td><u>3</u></td><td><u>4</u></td><td><u>5</u></td></tr><tr><td><i>line type</i></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td><i>line width</i></td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td></tr><tr><td><i>line colour</i></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.  Other: None.	<i>Index</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<i>line type</i>	1	2	3	4	5	<i>line width</i>	1.0	1.0	1.0	1.0	1.0	<i>line colour</i>	1	1	1	1	1
<i>Index</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>																					
<i>line type</i>	1	2	3	4	5																					
<i>line width</i>	1.0	1.0	1.0	1.0	1.0																					
<i>line colour</i>	1	1	1	1	1																					
T.20.6	Same as Model Profile <input type="checkbox"/>																									
MARKER TYPE [v1]  References: 5.7.6 D.4.6.4	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Indicate one or more of the following restrictions: <input type="checkbox"/> values 1..5: <input type="checkbox"/> subset of registered values (attach list): <input type="checkbox"/> profile-defined values (attach complete description):  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Indicate one or more of the following restrictions: <input checked="" type="checkbox"/> values 1..5: <input type="checkbox"/> subset of registered values (attach list): <input type="checkbox"/> profile-defined values (attach complete description):  Other: None.																								

**Table 20 - Attribute elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.7	Same as Model Profile <input type="checkbox"/>	
MARKER SIZE [v1]  References: 5.7.7 D.4.6.5	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Is value zero allowed? (yes/no) If yes, specify its meaning.  Any restrictions on the parameter value?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is value zero allowed? (yes/no) <i>Yes</i> . If yes, specify its meaning. <i>Minimum available size</i> .  Any restrictions on the parameter value? <i>None</i> .  Other: <i>None</i> .
T.20.8	Same as Model Profile <input type="checkbox"/>	
MARKER COLOUR [v1]  References: 5.7.8 7.5.4.1 T.14.1	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The marker colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The marker colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value? <i>None</i> .  Other: <i>None</i> .

**Table 20 - Attribute elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile																		
T.20.9	Same as Model Profile <input type="checkbox"/>																			
<p>TEXT BUNDLE INDEX [v1]</p> <p>References: 5.7.9 7.5.4.2 T.17.13 D.4.6.1</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>The marker colour specifier parameter shall follow the rules for indexes, clause 7.5.4.2.</p> <p>For [v1] metafiles, allowable index values:</p> <p>For [v 2/3] metafiles, any referenced bundle shall have an explicit representation definition.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The marker colour specifier parameter shall follow the rules for indexes, clause 7.5.4.2.</p> <p>For [v1] metafiles, allowable index values:</p> <table> <tr> <td><i>Index</i></td><td><i>1.2.</i></td><td><i>2</i></td></tr> <tr> <td><i>font index</i></td><td><i>1</i></td><td><i>1</i></td></tr> <tr> <td><i>text precision</i></td><td><i>stroke</i></td><td><i>stroke</i></td></tr> <tr> <td><i>character expansion factor</i></td><td><i>1.0</i></td><td><i>1.0</i></td></tr> <tr> <td><i>character spacing</i></td><td><i>0.0</i></td><td><i>0.0</i></td></tr> <tr> <td><i>text colour</i></td><td><i>1</i></td><td><i>1</i></td></tr> </table> <p>For [v 2/3] metafiles, any referenced bundle shall have an explicit representation definition.</p> <p>Other: <i>None.</i></p>	<i>Index</i>	<i>1.2.</i>	<i>2</i>	<i>font index</i>	<i>1</i>	<i>1</i>	<i>text precision</i>	<i>stroke</i>	<i>stroke</i>	<i>character expansion factor</i>	<i>1.0</i>	<i>1.0</i>	<i>character spacing</i>	<i>0.0</i>	<i>0.0</i>	<i>text colour</i>	<i>1</i>	<i>1</i>
<i>Index</i>	<i>1.2.</i>	<i>2</i>																		
<i>font index</i>	<i>1</i>	<i>1</i>																		
<i>text precision</i>	<i>stroke</i>	<i>stroke</i>																		
<i>character expansion factor</i>	<i>1.0</i>	<i>1.0</i>																		
<i>character spacing</i>	<i>0.0</i>	<i>0.0</i>																		
<i>text colour</i>	<i>1</i>	<i>1</i>																		
T.20.10	Same as Model Profile <input type="checkbox"/>																			
<p>TEXT FONT INDEX [v1]</p> <p>References: 5.7.10 7.5.4.2 T.16.13</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Every referenced index shall refer to an entry in the FONT LIST (see T.16.13).</p> <p>Other: <i>When not present, treat as if index=1.</i></p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Every referenced index shall refer to an entry in the FONT LIST (see T.16.13).</p> <p>Other: <i>None.</i></p>																		

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.11	Same as Model Profile <input type="checkbox"/>	
TEXT PRECISION [v1]  References: 5.7.11	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? String only.</p> <p>Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.20.12	Same as Model Profile <input type="checkbox"/>	
CHARACTER EXPANSION FACTOR [v1]  References: 5.7.12	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Is value zero allowed? (yes/no) No. If yes, state the meaning.</p> <p>Any restrictions on the parameter value? 1.0 only.</p> <p>Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Is value zero allowed? (yes/no) <i>No.</i> If yes, state the meaning.</p> <p>Any restrictions on the parameter value? <i>Values shall be restricted to the range 0.1..10.0.</i></p> <p>Other: <i>None.</i></p>
T.20.13	Same as Model Profile <input type="checkbox"/>	
CHARACTER SPACING [v1]  References: 5.7.13	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? 0.0 only.</p> <p>Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>Values shall be restricted to the range of -1.0..5.0.</i></p> <p>Other: <i>None.</i></p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.14	Same as Model Profile <input type="checkbox"/>	
TEXT COLOUR [v1]  References: 5.7.14 7.5.4.1 T.14.1	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The <i>text colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value? RGB only.  Other: <i>By default Text Colour will be device dependent foreground colour unless specified.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The <i>text colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.20.15	Same as Model Profile <input type="checkbox"/>	
CHARACTER HEIGHT [v1]  References: 5.7.15 D.4.6.9	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is zero height allowed? (yes/no) No. If yes, state the meaning.  Any restrictions on the parameter value? Yes, sizes 10 - 38.  Other: <i>None.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Is zero height allowed? <i>Yes.</i> If yes, state the meaning. <i>Minimum available height.</i>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>

**Table 20 - Attribute elements(continued)**

<p>T.20.16</p> <p>CHARACTER ORIENTATION [v1]</p> <p>References: 5.7.16 D.4.6.10</p>	<p>Same as Model Profile <input type="checkbox"/></p> <p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the following distortion aspects? Yes.</p> <p>rotation? Not allowed.</p> <p>skewing? Not allowed.</p> <p>mirroring? Not allowed.</p> <p>aspect ratio? Not allowed.</p> <p>Other:</p> <p><i>When VDC Extent element with x increasing right and y increasing up (x1&lt;x2 and y1&lt;y2). Character Orientation element not required or Y= 1 and X = 1 when Character Orientation present.</i></p> <p><i>When VDC Extent element with x increasing right and y increasing down x1&lt;x2 and y1&gt;y2). Character Orientation element not required or Y= -1 and X = 1 when Character Orientation present.</i></p> <p><i>When VDC Extent element with x increasing left and y increasing up (x1&gt;x2 and y1&lt;y2). Character Orientation element not required or Y=1 and X = -1 when Character Orientation present.</i></p> <p><i>When VDC Extent element with x increasing left and y increasing down (x1&gt;x2 and y1&gt;y2). Character Orientation element not required or Y= -1 and X = -1 when Character Orientation present.</i></p> <p><i>By default the Character Orientation will be 0, 1, 1, 0.</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the following distortion aspects?</p> <p>rotation? <i>None.</i></p> <p>skewing? <i>None.</i></p> <p>mirroring? <i>None.</i></p> <p>aspect ratio? <i>None.</i></p> <p>Other: <i>None.</i></p>
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**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.17	Same as Model Profile <input type="checkbox"/>	
TEXT PATH [v1]  References: 5.7.17 D.4.6.11	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the parameter value? Right only. Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the parameter value? None. Other: None.
T.20.18	Same as Model Profile <input type="checkbox"/>	
TEXT ALIGNMENT [v1]  References: 5.7.18 D.4.6.12	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the horizontal and vertical alignment values? Normal horizontal and vertical only. Any restrictions on the continuous horizontal and vertical alignment values? None. Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any retractions on the horizontal and vertical alignment values? None. Any restrictions on the continuous horizontal and vertical alignment values? None. Other: None.
T.20.19	Same as Model Profile <input type="checkbox"/>	
CHARACTER SET INDEX [v1]  References: 5.7.19 D.4.6.13 7.5.4.2 T.16.14 T.16.22	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> Every referenced index shall refer to an entry in the CHARACTER SET LIST or GLYPH MAPPING. This includes implicit reference to the default index value. Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Every referenced index shall refer to an entry in the CHARACTER SET LIST or GLYPH MAPPING. This includes implicit reference to the default index value. Other: None.

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile																														
T.20.20	Same as Model Profile <input type="checkbox"/>																															
ALTERNATE CHARACTER SET INDEX [v1]  References: 5.7.20 7.5.4.2 T.16.14 D.4.6.13 T.16.22	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Every referenced index shall refer to an entry in the CHARACTER SET LIST or GLYPH MAPPING. This includes implicit reference to the default index value.   Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Every referenced index shall refer to an entry in the CHARACTER SET LIST or GLYPH MAPPING. This includes implicit reference to the default index value.   Other: <i>None.</i>																														
T.20.21	Same as Model Profile <input type="checkbox"/>																															
FILL BUNDLE INDEX [v1]  References: 5.7.21 7.5.4.2 T.17.14 D.4.6.1	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The <i>fill bundle index</i> parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values:  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.   Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The <i>fill bundle index</i> parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values: <i>1..5.</i> <table><tr><td><i>Index</i></td><td><i>1</i></td><td><i>2</i></td><td><i>3</i></td><td><i>4</i></td><td><i>5</i></td></tr><tr><td><i>Interior style</i></td><td><i>hatch</i></td><td><i>hatch</i></td><td><i>hatch</i></td><td><i>hatch</i></td><td><i>hatch</i></td></tr><tr><td><i>Fill colour</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td></tr><tr><td><i>Hatch index</i></td><td><i>1</i></td><td><i>2</i></td><td><i>3</i></td><td><i>4</i></td><td><i>5</i></td></tr><tr><td><i>Pattern index</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td><td><i>1</i></td></tr></table> For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.   Other: <i>None.</i>	<i>Index</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>Interior style</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>	<i>Fill colour</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>Hatch index</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>Pattern index</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
<i>Index</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>																											
<i>Interior style</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>	<i>hatch</i>																											
<i>Fill colour</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>																											
<i>Hatch index</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>																											
<i>Pattern index</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>																											



**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.22	Same as Model Profile <input type="checkbox"/>	
INTERIOR STYLE [v1]  References: 5.7.22 D.4.6.15	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>For 'hollow' interior style, line type and width of the bounding line: Same as model profile.</p> <p>Any restrictions on the parameter value? Yes, hollow (0), solid (1), pattern (2), and empty (4).</p> <p>Other: <i>The interior style will default to hollow unless it is specified otherwise in the CGM file.</i></p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>For 'hollow' interior style, line type and width of the bounding line: <i>Solid line type and default line width.</i></p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.20.23	Same as Model Profile <input type="checkbox"/>	
FILL COLOUR [v1]  References: 5.7.23 7.5.4.1 T.14.1	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The <i>fill colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Any restrictions on the parameter value? 8 bit RGB only.</p> <p>Other: <i>When this attribute is not included, then fill colour should default to the device dependent foreground colour.</i></p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The <i>fill colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.24	Same as Model Profile <input type="checkbox"/>	
<p>HATCH INDEX [v1]</p> <p>References: 5.4.18 D.4.6.16 5.7.24 5.7.4.2</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Select 1 or more of the following:</p> <p><input type="checkbox"/> values 1..6:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p><input type="checkbox"/> profile-defined values (attach complete description):</p> <p>For [v3] metafiles:</p> <p><input type="checkbox"/> negative values assigned by the HATCH STYLE DEFINITION elements.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Select 1 or more of the following:</p> <p><input checked="" type="checkbox"/> values 1..6:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p><input type="checkbox"/> profile-defined values (attach complete description):</p> <p>For [v3] metafiles:</p> <p><input checked="" type="checkbox"/> negative values assigned by the HATCH STYLE DEFINITION elements.</p> <p>Other: <i>None</i>.</p>
T.20.25	Same as Model Profile <input checked="" type="checkbox"/>	
<p>PATTERN INDEX [v1]</p> <p>References: 5.7.25 7.5.4.2</p>	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The <i>pattern index</i> parameter shall follow the rules for indexes, clause 7.5.4.2.</p> <p>Any restrictions on the parameter value?</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The <i>pattern index</i> parameter shall follow the rules for indexes, clause 7.5.4.2.</p> <p>Any restrictions on the parameter value? <i>None</i>.</p> <p>Other: <i>None</i>.</p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile																								
T.20.26	Same as Model Profile <input type="checkbox"/>																									
EDGE BUNDLE INDEX [v1]  References: 5.7.26 D.4.6.1 T.17.15 5.7.4.2	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The edge bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values:  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.        Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  The edge bundle index parameter shall follow the rules for indexes, clause 7.5.4.2.  For [v1] metafiles, allowable index values: 1..5. <table><tr><td><i>index</i></td><td><u>1</u></td><td><u>2</u></td><td><u>3</u></td><td><u>4</u></td><td><u>5</u></td></tr><tr><td><i>edge type</i></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td><i>edge width</i></td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td></tr><tr><td><i>edge colour</i></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>  For [v2/3] metafiles, any referenced bundle shall have an explicit representation definition.      Other: None.	<i>index</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<i>edge type</i>	1	2	3	4	5	<i>edge width</i>	1.0	1.0	1.0	1.0	1.0	<i>edge colour</i>	1	1	1	1	1
<i>index</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>																					
<i>edge type</i>	1	2	3	4	5																					
<i>edge width</i>	1.0	1.0	1.0	1.0	1.0																					
<i>edge colour</i>	1	1	1	1	1																					
T.20.27	Same as Model Profile <input type="checkbox"/>																									
EDGE TYPE [v1]  References: 5.4.17 7.7.27 D.4.6.17	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Select 1 or more of the following: <input checked="" type="checkbox"/> values 1..5: 1 and 2 <input checked="" type="checkbox"/> subset of registered values (attach list): Solid (1), Dash (2) <input type="checkbox"/> profile-defined values (attach complete description):   For [v3] metafiles: <input type="checkbox"/> negative values assigned by the LINE AND EDGE TYPE DEFINITION element.     Other: By default Edge Type will be Solid unless it is specified in the CGM file.	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Select 1 or more of the following: <input checked="" type="checkbox"/> values 1..5: <input type="checkbox"/> subset of registered values (attach list): <input type="checkbox"/> profile-defined values (attach complete description):   For [v3] metafiles: <input checked="" type="checkbox"/> negative values assigned by the LINE AND EDGE TYPE DEFINITION element.     Other: None.																								

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.28	Same as Model Profile <input type="checkbox"/>	
EDGE WIDTH [v1]  References: 5.7.28 D.4.6.18	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Is value zero allowed? (yes/no) No. If yes, specify its meaning.</p> <p>Any restrictions on the parameter value? Yes, 1 - 100</p> <p>Other: <i>None</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Is value zero allowed? (yes/no) <i>Yes</i>. If yes, specify its meaning. <i>Minimum available edge width.</i></p> <p>Any restrictions on the parameter value? <i>None</i>.</p> <p>Other: <i>None</i>.</p>
T.20.29	Same as Model Profile <input type="checkbox"/>	
EDGE COLOUR [v1]  References: 5.7.29 7.5.4.1 T.14.1	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The edge colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Any restrictions on the parameter value? RGB only.</p> <p>Other: <i>When this attribute is not included in the metafile the Edge Colour shall default to the device dependent foreground colour .</i></p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The edge colour specifier parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.</p> <p>Any restrictions on the parameter value? <i>None</i>.</p> <p>Other: <i>None</i>.</p>
T.20.30	Same as Model Profile <input checked="" type="checkbox"/>	
EDGE VISIBILITY [v1]  References: 5.7.30	<p>Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value?</p> <p>Other:</p>	<p>Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>None</i>.</p> <p>Other: <i>None</i>.</p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.31	Same as Model Profile <input type="checkbox"/>	
FILL REFERENCE POINT [v1]  References: 5.7.31	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>
T.20.32	Same as Model Profile <input checked="" type="checkbox"/>	
PATTERN TABLE [v1]  References: 5.7.32	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum size for nx:  Allowable values for nx:  Maximum size for ny:  Allowable values for ny:  Any restrictions on the number of pattern definitions?  Any restrictions on allowable combinations of nx and ny?  Any restrictions on the number of colours?  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Maximum size for nx: 32.  Allowable values for nx: 8, 16, or 32.  Maximum size for ny: 32.  Allowable values for ny: 8, 16, or 32.  Any restrictions on the number of pattern definitions? 64.  Any restrictions on allowable combinations of nx and ny? <i>None.</i>  Any restrictions on the number of colours? <i>None.</i>  Other: <i>None.</i>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.33	Same as Model Profile <input checked="" type="checkbox"/>	
PATTERN SIZE [v1]  References: 5.7.33 D.4.6.19	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Must pattern vectors be parallel to coordinate axes? (yes/no) If no, state of ther meaning of skewed or non-aligned patterns.  <i><b>NOTE - The description of the layout order of pattern cells in the PATTERN SIZE element (5.7.33) contains an error. The error is corrected by a defect report.</b></i>  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Must pattern vectors be parallel to coordinate axes? (yes/no) <i>No.</i> If no, state the meaning of skewed or non-aligned patterns.  Other:
T.20.34	Same as Model Profile <input type="checkbox"/>	
COLOUR TABLE [v1]  References: 5.7.34 7.5.4.1 T.14.1	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the length of colour list?  Any restrictions on the index values?   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any limits on the length of colour list? <i>Monochrome:2, Greyscale:64, Colour:256.</i>  Any restrictions on the index values? <i>Index values shall not exceed the maximum colour index.</i>  Other: <i>None.</i>
T.20.35	Same as Model Profile <input type="checkbox"/>	
ASPECT SOURCE FLAGS [v1]  References: 5.7.35 D.4.6.20	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Are all ASF values to be the same: for the metafile? (yes/no) within each class (line, marker, text, fill, edge) of primitive? (yes/no)  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Are all ASF values to be the same: for the metafile? (yes/no) <i>No.</i> within each class (line, marker, text, fill, edge) of primitive? (yes/no) <i>Yes.</i>  Other: <i>None.</i>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.36	Same as Model Profile <input type="checkbox"/>	
PICK IDENTIFIER [v2]  References: 5.7.36	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the parameter value?</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the parameter value? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.20.37	Same as Model Profile <input type="checkbox"/>	
LINE CAP [v3]  References: 5.7.37 7.5.7.5 T.25.7	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the set of values for the line cap indicator? (choose 1 or both)</p> <p><input type="checkbox"/> values 1..5:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Any restrictions on the set of values for the dash cap indicator? (choose 1 or both)</p> <p><input type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the set of values for the line cap indicator? (choose 1 or both)</p> <p><input checked="" type="checkbox"/> values 1..5:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Any restrictions on the set of values for the dash cap indicator? (choose 1 or both)</p> <p><input checked="" type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other: <i>None.</i></p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.38	Same as Model Profile <input type="checkbox"/>	
LINE JOIN [v3]  References: 5.7.38 7.5.7.5 T.25.7	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input checked="" type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other: <i>None.</i>
T.20.39	Same as Model Profile <input type="checkbox"/>	
LINE TYPE CONTINUATION [v3]  References: 5.7.39 7.5.7.5 T.25.7	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the set of values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the set of values? <i>1..4.</i>  Other: <i>None.</i>
T.20.40	Same as Model Profile <input type="checkbox"/>	
LINE TYPE INITIAL OFFSET [v3]  References: 5.7.40	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>



**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.41	Same as Model Profile <input type="checkbox"/>	
TEXT SOURCE TYPE [v3]  References: 5.7.41	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input checked="" type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other: <i>None.</i>
T.20.42	Same as Model Profile <input type="checkbox"/>	
RESTRICTED TEXT TYPE [v3]  References: 5.7.42 7.5.7.5 T.25.7	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input type="checkbox"/> values 1..6: <input type="checkbox"/> subset of registered values (attach list):  Algorithms for achieving restriction type? (attach)  Other:	Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the set of values? (choose 1 or both) <input checked="" type="checkbox"/> values 1..6: <input type="checkbox"/> subset of registered values (attach list):  Algorithms for achieving restriction type? (attach) <i>Not specified.</i>  Other: <i>None.</i>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.43	Same as Model Profile <input type="checkbox"/>	
INTERPOLATED INTERIOR [v3]  References: 5.7.43	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any limits on the number of stages?</p> <p>Any restrictions on the set of values? (choose 1 or both)</p> <p><input type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any limits on the number of stages? Maximum number of stages is 8.</p> <p>Any restrictions on the set of values? (choose 1 or both)</p> <p><input checked="" type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other: <i>None.</i></p>
T.20.44	Same as Model Profile <input type="checkbox"/>	
EDGE CAP [v3]  References: 5.7.44 7.5.7.5 T.25.7	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Any restrictions on the set of values for the edge cap indicator? (choose 1 or both)</p> <p><input type="checkbox"/> values 1..5:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Any restrictions on the set of values for the dash cap indicator? (choose 1 or both)</p> <p><input type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the set of values for the edge cap indicator? (choose 1 or both)</p> <p><input checked="" type="checkbox"/> values 1..5:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Any restrictions on the set of values for the dash cap indicator? (choose 1 or both)</p> <p><input checked="" type="checkbox"/> values 1..3:</p> <p><input type="checkbox"/> subset of registered values (attach list):</p> <p>Other: <i>None.</i></p>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.45	Same as Model Profile <input type="checkbox"/>	
EDGE JOIN [v3]  References: 5.7.45 7.5.7.5 T.25.7	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> Any restrictions on the set of values? (choose 1 or both) <input type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the set of values? (choose 1 or both) <input checked="" type="checkbox"/> values 1..4: <input type="checkbox"/> subset of registered values (attach list):  Other: <i>None.</i>
T.20.46	Same as Model Profile <input type="checkbox"/>	
EDGE TYPE CONTINUATION [v3]  References: 5.7.46 7.5.7.5 T.25.7	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> Any restrictions on the set of values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the set of values? <i>1..4.</i>  Other: <i>None.</i>
T.20.47	Same as Model Profile <input type="checkbox"/>	
EDGE TYPE INITIAL OFFSET [v3]  References: 5.7.47	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>None.</i>  Other: <i>None.</i>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.48	Same as Model Profile <input type="checkbox"/>	
SYMBOL LIBRARY INDEX [v3]  References: 5.7.48 7.5.4.2 T.16.23	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Every referenced index shall refer to an entry in the SYMBOL LIBRARY LIST (see T.16.23).  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Every referenced index shall refer to an entry in the SYMBOL LIBRARY LIST (see T.16.23).  Other: <i>This element is prohibited because SYMBOL LIBRARY LIST is prohibited.</i>
T.20.49	Same as Model Profile <input type="checkbox"/>	
SYMBOL COLOUR [v3]  References: 5.7.49 7.5.4.1 T.14.1 T.16.23 D.4.6.21	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The <i>symbol colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value?   Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  The <i>symbol colour specifier</i> parameter shall follow the rules for colour, clause 7.5.4.1 and T.14.1.  Any restrictions on the parameter value?   Other: <i>This element is prohibited because SYMBOL LIBRARY LIST is prohibited.</i>
T.20.50	Same as Model Profile <input type="checkbox"/>	
SYMBOL SIZE [v3]  References: 5.7.50 T.16.23	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Is value zero allowed: (yes/no) If yes, specify its meaning.  Any restrictions on the parameter value?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Is value zero allowed: (yes/no) If yes, specify its meaning.  Any restrictions on the parameter value?  Other: <i>This element is prohibited because SYMBOL LIBRARY LIST is prohibited.</i>

**Table 20 - Attribute elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.20.51	Same as Model Profile <input type="checkbox"/>	
SYMBOL ORIENTATION [v3]  References: 5.7.51 T.16.23 D.4.6	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on rotation?  Any restrictions on skewing?  Any restrictions on mirroring?  Any restrictions on distortion of aspect ratio?   Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on rotation?  Any restrictions on skewing?  Any restrictions on mirroring?  Any restrictions on distortion of aspect ratio?   Other: <i>This element is prohibited because SYMBOL LIBRARY LIST is prohibited.</i>

**Table 21 - Escape elements**

Element	Specifications - PPF	Specifications - Model Profile
T.21.1	Same as Model Profile <input type="checkbox"/>	
ESCAPE [v1]	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>
References: 5.8.1	List all registered ESCAPEs that are allowed:  List all profile-defined ESCAPEs that are allowed and attach complete description:  <i>NOTE - Only registered ESCAPEs and profile-defined ESCAPEs shall be allowed in profiles.</i>  Other:	List all registered ESCAPEs that are allowed: <i>ESCAPE 22, Transparent Cell Colour [v1/v2] metafiles only.</i>  List all profile-defined ESCAPEs that are allowed and attach complete description: <i>None.</i>  Other: <i>None.</i>

**Table 22 - External elements**

Element	Specifications - PPF	Specifications - Model Profile
T.22.1  MESSAGE [v1]  References: 5.9.1	Same as Model Profile <input type="checkbox"/>	
	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>Values of the <i>action required flag</i> parameter:</p> <p>'action' Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/> (If permitted, specify the messages and actions taken)</p> <p>'no action' Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the length of the message string, other than those for type SF parameter?</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Values of the <i>action required flag</i> parameter:</p> <p>'action' Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> (If permitted, specify the messages and actions taken)</p> <p>'no action' Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Any restrictions on the length of the message string, other than those for type SF parameter? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.22.1  APPLICATION DATA [v1]  References: 5.9.2	Same as Model Profile <input type="checkbox"/>	
	<p>Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/></p> <p>The use of this element shall not be restricted.</p> <p>Attach a syntactic and semantic description of all application data elements associated with this profile.</p> <p>Other:</p>	<p>Element: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>The use of this element shall not be restricted.</p> <p>Attach a syntactic and semantic description of all application data elements associated with this profile.</p> <p>Other: <i>None.</i></p>

**Table 23 - Segment elements**

Element	Specifications - PPF	Specifications - Model Profile
T.23.1	Same as Model Profile <input type="checkbox"/>	
COPY SEGMENT [v2]  References: 5.10.1 D.4.9.2	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Every segment identifier shall refer to a defined segment.  Any limits on the segment transformation application value?  Any restrictions on the nature of the transformation (e.g., permitting only isotropic transformations)?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Every segment identifier shall refer to a defined segment.  Any limits on the segment transformation application value? <i>None.</i>  Any restrictions on the nature of the transformation (e.g., permitting only isotropic transformations)? <i>Non-singular.</i>  Other: <i>None.</i>
T.23.1	Same as Model Profile <input type="checkbox"/>	
INHERITANCE FILTER [v2]  References: 5.10.2	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the filter selection list?  Any limits on the selection setting?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the filter selection list? <i>None.</i>  Any limits on the selection setting? <i>None.</i>  Other: <i>None.</i>
T.23.3	Same as Model Profile <input type="checkbox"/>	
CLIP INHERITANCE [v2]  References: 5.10.3 D.4.9.2	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the parameter?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any limits on the parameter? <i>None.</i>  Other: <i>None.</i>



**Table 23 - Segment elements (continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.23.4	Same as Model Profile <input type="checkbox"/>	
SEGMENT TRANSFORMATION [v2]  References: 5.10.4	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the nature of the transformation (e.g., permitting only isotropic transformations)?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the nature of the transformation (e.g., permitting only isotropic transformations)? <i>Non-singular.</i>  Other: <i>None.</i>
T.23.5	Same as Model Profile <input type="checkbox"/>	
SEGMENT HIGHLIGHTING [v2]  References: 5.10.5	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter values? <i>None</i>  Other: <i>None.</i>
T.23.6	Same as Model Profile <input type="checkbox"/>	
SEGMENT DISPLAY PRIORITY [v2]  References: 5.10.6	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter values?  Other:	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter values? <i>None</i>  Other: <i>None.</i>

**Table 23 - Segment elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.21.7	Same as Model Profile <input type="checkbox"/>	
SEGMENT PICK PRIORITY [v2]  References: 5.10.7	Element: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/> Any restrictions on the parameter values?   Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the parameter values? <i>None.</i>   Other: <i>None.</i>

**Table 24 - Generator implementation requirements**

Functionality	Specifications - PPF	Specifications - Model Profile
T.24.1	Same as Model Profile <input checked="" type="checkbox"/>	
<p>Colour requirements</p> <p>References: 5.5.4.1 7.5.6.2.1</p>	<p>Element: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Reduction of the number of colours?</p> <p>Definition of mapping algorithms, metrics, and colour space?</p> <p>For [v1/v2] metafiles, implicit colour calibration specification?</p> <p>Other:</p>	<p>Element: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/></p> <p>Reduction of the number of colours? <i>Not specified.</i>  <i>NOTE - If mapping of application colours to metafile colour specification is required. It is recommended that colour distance in the mapping be computed by the Euclidean metric in CIEXYZ space.</i></p> <p>Definition of mapping algorithms, metrics, and colour space? <i>No specific colour mapping techniques or selection of metafile colour sets are defined.</i></p> <p>For [v1/v2] metafiles, implicit colour calibration specification? <i>No specifications are defined.</i></p> <p>Other: <i>None.</i></p>
T.24.2	Same as Model Profile <input checked="" type="checkbox"/>	
<p>Geometric accuracy and latitude</p> <p>References: 7.5.6.2</p>	<p>Accuracy and latitude for mapping application graphics to CGM graphical primitive elements:</p>	<p>Accuracy and latitude for mapping application graphics to CGM graphical primitive elements: <i>Generators shall produce a metafile whose graphical primitive elements match the application graphical primitives accurately to within <math>\pm 0.1\%</math> of relative position within the VDC Extent box or <math>\pm 1/2</math> pixel of the intended size, whichever is greater.</i></p> <p><i>This requirement shall apply to all graphical primitive elements, unless superseded by specific element requirements in this clause.</i></p>

**Table 24 - Generator implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.24.3	Same as Model Profile <input checked="" type="checkbox"/>	
Text accuracy and latitude  References: 7.5.6.2.4	Is text accuracy and latitude addressed? (yes/no) If yes, specify.	Is text accuracy and latitude addressed? (yes/no) Yes. If yes, specify. <i>Metafile text specifications shall match the text of the application picture to within <math>\pm 1\%</math> of relative to the intended size or <math>\pm 1/2</math> pixel of the intended size, whichever is greater, for the placement and overall extent of each text string.</i>
T.24.4	Same as Model Profile <input checked="" type="checkbox"/>	
Font substitution  References: 7.5.6.2.5 annex H	Font substitution is: Permitted <input type="checkbox"/> Prohibited <input type="checkbox"/>  Similarity of font visual characteristics?  Font metrics?  Individual glyph metrics?  Other:	Font substitution is: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Similarity of font visual characteristics? <i>Substituted fonts shall have similar visual characteristics (e.g., posture, weight, proportionate width).</i>  Font metrics? <i>Specified in annex H.</i>  Individual glyph metrics? <i>Specified in annex H.</i>  Other: <i>None.</i>
T.24.5	Same as Model Profile <input checked="" type="checkbox"/>	
Preservation of primitives  References: 7.5.6.3	Is preservation of graphical primitive elements addressed? (yes/no) If yes, specify allowable substitutions.	Is preservation of graphical primitive elements addressed? (yes/no) No. If yes, specify allowable substitutions.

**Table 24 - Generator implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.24.6	Same as Model Profile <input checked="" type="checkbox"/>	
Semantic latitude	Drawing priority and mode: Priority shall correspond to the metafile order (i.e., primitives occurring later in the file shall overlay primitives occurring earliest in the file). Mode shall be "replacement mode".	Drawing priority and mode: <i>Priority shall correspond to the metafile order (i.e., primitives occurring later in the file shall overlay primitives occurring earliest in the file). Mode shall be "replacement mode".</i>
References: 7.5.6.4	Clipping: Clipping shall be to the intersection of the clip rectangle, the VDC EXTENT, the device viewport, and the device view surface limits .  Edge centering: Edges shall be centered on the ideal mathematically-defined edge of the area.  Meaning of predefined line types and edge types: The exact on-off definitions for the predefined line types and edge types are not specified .  Meaning of predefined hatch styles: The inter-line spacing is not specified. Use the latitudes of annex D4.6.16 for the angular directions.  Other: <i>None.</i>	Clipping: <i>Clipping shall be to the intersection of the clip rectangle, the VDC EXTENT, the device viewport, and the device view surface limits.</i>  Edge centering: <i>Edges shall be centered on the ideal mathematically-defined edge of the area.</i>  Meaning of predefined line types and edge types: <i>The exact on-off definitions for the predefined line types and edge types are not specified.</i>  Meaning of predefined hatch styles: <i>The inter-line spacing is not specified. Use the latitudes of annex D4.6.16 for the angular directions.</i>  Other: <i>None.</i>
T.24.7	Same as Model Profile <input checked="" type="checkbox"/>	
Error processing	Is error processing addressed? (yes/no) If yes, specify the action taken. Classification of error severity? Requirements for error recovery? Requirements for error reporting? Additional areas?	Is error processing addressed? (yes/no) <i>No.</i> If yes, specify the action taken. Classification of error severity? Requirements for error recovery? Requirements for error reporting? Additional areas?
References: 7.5.6.5	Other:	Other: <i>None.</i>

**Table 24 - Generator implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.24.8	Same as Model Profile <input checked="" type="checkbox"/>	
Reporting  References: 7.5.6.6	<p>Is reporting required? (yes/no) If yes, specify action taken. Method and format of the reporting? Requirement to report substitution, error, fallback behavior, mappings, or other behaviors? Additional areas?</p> <p>Other:</p>	<p>Is reporting required? (yes/no) <i>No</i>. If yes, specify action taken. Method and format of the reporting? Requirement to report substitution, error, fallback behavior, mappings, or other behaviors? Additional areas?</p> <p>Other: <i>None</i>.</p>
T.24.9	Same as Model Profile <input type="checkbox"/>	
Degeneracies  References: 7.5.6.7 7.5.4.4 D.2 D.4	<p>Is the generation of degenerate primitives addressed? (yes/no) Yes.</p> <p>If yes, attach specifications.</p> <p>When producing circular or elliptical arcs, the CGM implementation shall not select the same or adjacent pixels at the point where the vectors cross the circumference of the arc at full resolution.</p> <p>Other:</p>	<p>Is the generation of degenerate primitives addressed? (yes/no) <i>No. The generation of degenerate primitives is not restricted.</i></p> <p>If yes, attach specifications</p> <p>Other: <i>None</i>.</p>

**Table 25 - Interpreter implementation requirements**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.1	Same as Model Profile <input checked="" type="checkbox"/>	
Number of pictures  References: 7.5.7.2 T.13.2	If 0 pictures are permitted (see T.13.2), describe the interpreter behavior:	If 0 pictures are permitted (see T.13.2), describe the interpreter behavior: <i>Prohibited by T.13.2.</i>
T.25.2	Same as Model Profile <input checked="" type="checkbox"/>	
Empty pictures  References: 7.5.7.3 T.13.3	If permitted (see T.13.3), interpreter behavior:	If permitted (see T.13.3), interpreter behavior: <i>The graphical effect shall be one picture in the background colour.</i>
T.25.3	Same as Model Profile <input type="checkbox"/>	
Colour requirements  References: 7.5.4.1 7.5.7.4.1 7.5.4.5	<p>Interpreters shall be classified as either monochrome, greyscale, or colour interpreters (depending on the colour capability of the interpreter), and shall meet the criteria in attachment 25.4. BIMA CGM files are 24 bit RGB colour only, it is up to greyscale system to convert the RGB to greyscale in accordance with:</p> <p>Conversions between different colour models shall be according to the conversions in annex G. Not applicable.</p> <p>Mapping of metafile colour to device components? Not specified.</p> <p>For eight-bit gray scale systems:  <math>\text{pixel value}_g = 0.299 \cdot \text{RED} + 0.587 \cdot \text{GREEN} + 0.114 \cdot \text{BLUE}</math></p> <p>For one bit black and white systems:  <math>\text{pixel value}_1 = \begin{cases} 1 \text{ (white), if } \text{pixel value}_g &gt; 127 \\ 0 \text{ (black), if } \text{pixel value}_g \leq 127 \end{cases}</math></p> <p>For [v1/2] metafiles, implicit colour calibration specifications? No.</p> <p>Other: <i>None.</i></p>	<p>Interpreters shall be classified as either monochrome, greyscale, or colour interpreters (depending on the colour capability of the interpreter), and shall meet the criteria in attachment 25.4.</p> <p>Conversions between different colour models shall be according to the conversions in annex G.</p> <p>Mapping of metafile colour to device components? <i>If mapping (to fewer colour, or greyscale, or monochrome) is required for RGB metafiles, the recommendations of annex D.3.2 shall be used.</i></p> <p>For [v1/2] metafiles, implicit colour calibration specifications? <i>No specifications are defined.</i></p> <p>Other: <i>None.</i></p>

**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.24.4	Same as Model Profile <input checked="" type="checkbox"/>	
Geometric accuracy and latitude  References: 7.5.7.4.2	Accuracy and latitude for placement and realization of geometric aspects when geometric primitive elements are rendered.	Accuracy and latitude for placement and realization of geometric aspects when geometric primitive elements are rendered. <i>Interpreters shall render graphical primitive elements accurately to within <math>\pm 0.1\%</math> of relative position within the VDC Extent box or <math>\pm 1/2</math> of the pixel resolution of the output device, whichever is greater. Interpreters shall render the geometric size aspect of primitives (e.g., text size, line width, and edge width) to within 1% of the intended size or <math>\pm 1/2</math> pixel of resolution of the output device, whichever is greater.</i>  <i>This requirement shall apply to all graphical primitive elements, unless superseded by specific element requirements in this clause.</i>
T.25.5	Same as Model Profile <input checked="" type="checkbox"/>	
Text rendering  References: 7.5.7.4.3 T.25.3	Is text accuracy and latitude addressed? (yes/no) If yes, specify.   Is precision of text rendering addressed? (yes/no) If yes, specify interpretation.	Is text accuracy and latitude addressed? (yes/no) <i>Yes.</i> If yes, specify. <i>Interpreter-rendered text shall match the text specification of the metafile to within 1% relative to the intended size or <math>\pm 1/2</math> pixel of resolution of the output device, whichever is greater, for the placement and overall extent of each text string.</i>  Is precision of text rendering addressed? (yes/no) <i>Yes.</i> If yes, specify interpretation. <i>Interpreters shall render text using 'stroke' precision, regardless of the actual value of the TEXT PRECISION of the metafile.</i>



**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.6	Same as Model Profile <input type="checkbox"/>	
Font substitution  References: 7.5.7.4.4 T.16.13 annex H	<p>Font substitution is: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> If prohibited, use the font as specified in the FONT LIST.</p> <p>If permitted, include a reference set of font and glyph metrics which correspond to the canonical instances of the substitutable font. See attached font list, clause 6.</p> <p>Are substitution methods, latitudes, and constraints addressed? (yes/no) No. If yes, specify. Similarity of font visual characteristics?</p> <p>Font metrics?</p> <p>Individual glyph metrics? Additional areas?</p> <p>Other: <b><i>BIMA interpreters must support one or more of the BIMA supported fonts as identified in the attached font list. If an interpreter receives a font that it does not support it will substitute it with one of the fonts from the supported font list.</i></b></p>	<p>Font substitution is: Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> If prohibited, use the font as specified in the FONT LIST.</p> <p>If permitted, include a reference set of font and glyph metrics which correspond to the canonical instances of the substitutable font. <i>See the FONT LIST element and annex H.</i></p> <p>Are substitution methods, latitudes, and constraints addressed? (yes/no) <i>Yes.</i> If yes, specify. Similarity of font visual characteristics? <i>Substituted fonts shall have similar visual characteristics to the fonts specified in the metafile.</i> Font metrics? <i>Substituted fonts shall have similar metrics to the fonts specified in the metafile.</i> Individual glyph metrics? <i>As specified in annex H.</i> Additional areas? <i>None.</i></p> <p>Other: <i>None.</i></p>
T.25.7	Same as Model Profile <input type="checkbox"/>	
Semantic latitude  References: 7.5.7.5 T.20.37 T.20.38 T.20.39 T.20.42 T.20.44 T.20.45 T.20.46	<p>Drawing priority and mode: Same as model profile.</p> <p>View surface clearing at picture start: The surface shall not be cleared when the Begin Picture Body occurs.</p> <p>Clipping: Clipping is not supported.</p>	<p>Drawing priority and mode: <i>Priority shall correspond to the metafile order (i.e., primitives occurring later in the file shall overlay primitives occurring earliest in the file. Mode shall be "replacement" mode.</i></p> <p>View surface clearing at picture start: <i>Surface will be cleared upon the occurrence of BEGIN PICTURE BODY.</i></p> <p>Clipping: <i>When CLIP INDICATOR is 'off', clipping shall be to the intersection of the device viewport and the device view surface limits. When CLIP INDICATOR is 'on', clipping shall be to the intersection of the clip rectangle, the VDC EXTENT, the device viewport, and the device view surface limits.</i></p>

**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.7 continued Semantic latitude	<p>Edge centering: Same as model profile.</p> <p>Meaning of predefined line types and edge types: Same as model profile.</p> <p>Meaning of predefined hatch styles: Same as model profile.</p> <p>For [v1/2] metafiles, text restriction method for RESTRICTED TEXT elements, chosen from the set of standard and registered styles of the RESTRICTED TEXT TYPE element: Not Permitted by Table reference T.20.42.</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line cap shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE CAP element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE CAP element. <i>Not Permitted by Table reference T.20.37.</i></p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge cap shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE CAP element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE CAP element. <i>Not Permitted by Table reference T.20.44.</i></p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line join shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE JOIN element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE JOIN element. <i>Not Permitted by Table reference T.20.38.</i></p>	<p>Edge centering: <i>Edges shall be centered on the ideal mathematically-defined edge of the area.</i></p> <p>Meaning of predefined line types and edge types: <i>The exact on-off definitions for the predefined line types and edge types are not specified.</i></p> <p>Meaning of predefined hatch styles: <i>The inter-line spacing is not specified. Use the latitudes of annex D.4.6.16 for the angular directions.</i></p> <p>For [v1/2] metafiles, text restriction method for RESTRICTED TEXT elements, chosen from the set of standard and registered styles of the RESTRICTED TEXT TYPE element:</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line cap shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE CAP element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE CAP element.</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge cap shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE CAP element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE CAP element.</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line join shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE JOIN element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE JOIN element.</p>

**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.7 continued Semantic latitude	<p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge join shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE JOIN element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE JOIN element. <i>Not Permitted by Table reference T.20.45.</i></p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line type continuation shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE TYPE CONTINUATION element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE TYPE CONTINUATION element. <i>Not Permitted by Table reference T.20.39.</i></p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge type continuation shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE TYPE CONTINUATION element. Values = ?</p> <p><input type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE TYPE CONTINUATION element. <i>Not Permitted by Table reference T.20.46.</i></p> <p>Other:</p>	<p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge join shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE JOIN element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE JOIN element.</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of line type continuation shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the LINE TYPE CONTINUATION element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the LINE TYPE CONTINUATION element.</p> <p>For [v1/2] metafiles, interpreter treatment of the 2 aspects of edge type continuation shall be either:</p> <p><input type="checkbox"/> In the style of one specific parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE TYPE CONTINUATION element. Values = ?</p> <p><input checked="" type="checkbox"/> In the style of any parameter value pair from the set of standard and registered values (excluding values 1) of the EDGE TYPE CONTINUATION element.</p> <p>Other:</p>

**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.8	Same as Model Profile <input type="checkbox"/>	
Error processing  References: 7.5.7.6	Is error processing addressed? (yes/no) Yes. If yes, specify the action taken. Classification of error severity? No. Requirements for error recovery? Yes. Requirements for error reporting? Yes. Additional areas? No.  Other:	Is error processing addressed? (yes/no) No. If yes, specify the action taken. Classification of error severity? Requirements for error recovery? Requirements for error reporting? Additional areas?  Other: None.
T.25.9	Same as Model Profile <input type="checkbox"/>	
Reporting  References: 7.5.7.7	Is reporting required? (yes/no) Yes. If yes, specify the action taken.  Method and format of the reporting? BIMA interpreters must report non-BIMA elements and unsupported types.  Requirement to report any substitution, error, fallback behavior, mapping, or other behaviors? No.  Additional areas? No.  Other: <i>None</i> .	Is reporting required? (yes/no) No. If yes, specify the action taken.  Method and format of the reporting?  Requirement to report any substitution, error, fallback behavior, mapping, or other behaviors?  Additional areas?  Other: None.
T.25.10	Same as Model Profile <input type="checkbox"/>	
Degeneracies  References: 7.5.7.8 7.5.4.4 D.2 D.4	Is the interpretation of degeneracies primitive addressed? (yes/no) No.  If yes, for each primitive, specify the degeneracy including its source .    Other: <i>None</i> .	Is the interpretation of degeneracies primitive addressed? (yes/no) Yes.  If yes, for each primitive, specify the degeneracy including its source . <i>Intrinsically degenerate primitives shall be rendered as specified in annex D subsections: D.2.2, D.2.3, D.4.5.4 through D.4.5.8, D.4.5.11, and D.4.5.12. Interpreters do detect computational degeneracies, they shall be rendered as specified in annex D subsections: D.2.2, D.2.3, D.4.5.4 through D.4.5.8, D.4.5.11 and D.4.5.12.</i>  Other: None.

**Table 25 - Interpreter implementation requirements (continued)**

Functionality	Specifications - PPF	Specifications - Model Profile
T.25.11	Same as Model Profile <input type="checkbox"/>	
Transparency	If transparency permitted, specify: Interpreters shall implement the AUXILLIARY COLOUR and TRANSPARENCY elements as described in the 2nd and 3rd paragraphs of the description in 5.5.4.	If transparency permitted, specify: <i>Interpreters shall implement the AUXILLIARY COLOUR and TRANSPARENCY elements as described in the 2nd and 3rd paragraphs of the description in 5.5.4.</i>
References: 5.5.3 5.5.4 T.18.4		

**The following table comes from ISO/IEC 8632-3, Second edition 1992-10-01, AMENDMENT 1 1994-12-16**

**Part 3:**

**Binary encoding**

**AMENDMENT 1: Rules for profiles**

**Table 12 - Delimiter elements**

Element	Specifications - PPF	Specifications - Model Profile
T.12.1	Same as Model Profile <input checked="" type="checkbox"/>	
no-op [v1]	Element is:    Required <input type="checkbox"/> Permitted <input type="checkbox"/>	Element is:    Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>
References: 7.2	Any restrictions on the parameter value?	Any restrictions on the parameter value? <i>None.</i>
	Other:	Other: <i>None.</i>

**Table 13 - Metafile descriptor elements**

Element	Specifications - PPF	Specifications - Model Profile
T.13.1	Same as Model Profile <input type="checkbox"/>	
INTEGER PRECISION [v1]  References: 7.3	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? Yes, 16 bit only.  Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? 8, 16, or 32.  Other: None.
T.13.2	Same as Model Profile <input type="checkbox"/>	
REAL PRECISION [v1]  Reference: 7.3	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?     Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/>  Any restrictions on the parameter value? <i>Any restrictions on the parameter value? (1, 16, 16) or (0, 9, 23).</i>  Other: None.
T.13.3	Same as Model Profile <input type="checkbox"/>	
INDEX PRECISION [v1]  References: 7.3	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? Yes, 16 bit only.  Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? 8, 16, or 32  Other: None.



**Table 13 - Metafile descriptor elements(continued)**

Element	Specifications - PPF	Specifications - Model Profile
T.13.4	Same as Model Profile <input type="checkbox"/>	
COLOUR PRECISION [v1]  References: 7.3	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Any restrictions on the parameter value? Yes, 8 bit only.  Other: <i>Since this profile only specifies a single value or option, this element although permitted, never needs to appear in a compliant metafile. See Clause 6.1.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Any restrictions on the parameter value? 8 or 16.  Other: None.
T.13.5	Same as Model Profile <input type="checkbox"/>	
COLOUR INDEX PRECISION [v1]  Reference: 7.3	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Any restrictions on the parameter value? 8  Other: <i>None.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Prohibited <input type="checkbox"/> Any restrictions on the parameter value? 8 or 16.  Other: None.
T.13.6	Same as Model Profile <input type="checkbox"/>	
NAME PRECISION [v2]  References: 7.3	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Any restrictions on the parameter value?  Other: <i>BIMA supports version 1 only.</i>	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/> Any restrictions on the parameter value? 16 or 32.  Other: None.

**Table 14 - Control elements**

Functionality	Specifications - PPF	Specifications - Model Profile
T.14.1	Same as Model Profile <input type="checkbox"/>	
VDC INTEGER PRECISION [V1] References 7.5	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? Yes, 16 bit only.  Other:	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? 16 or 32.  Other: <i>None</i> .
T.14.2	Same as Model Profile <input type="checkbox"/>	
VDC REAL PRECISION [V1] References 7.5	Element is: Required <input type="checkbox"/> Permitted <input type="checkbox"/> Prohibited <input checked="" type="checkbox"/>  Any restrictions on the parameter value?  Other: <i>None</i> .	Element is: Required <input type="checkbox"/> Permitted <input checked="" type="checkbox"/>  Any restrictions on the parameter value? <i>(1, 16, 16) or (0, 9, 16)</i> .  Other: <i>None</i> .